Richland Operations Office

Environmental Restoration

Environmental Management Performance Report

November 2000

Focused on Progress...
Focused on Outcomes!

Department of Energy
Richland Operations Office

Bechtel Hanford, Inc.
Environmental Restoration Contractor

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ENVIRONMENTAL MANAGEMENT PERFORMANCE REPORT
ENVIRONMENTAL RESTORATION
NOVEMBER 2000

INTRODUCTION

The monthly Environmental Restoration (ER) Environmental Management Performance Report consists of three sections: Section A - Executive Summary, Section B – Restoring the River Corridor Project Summaries, and Section C – Transitioning the Central Plateau Project Summaries. All cost, schedule, milestone commitments, performance measures, and safety data is current as of September 30. Accomplishments, Issues and Integration items are current as of October 26, unless otherwise noted. For this month's report, emphasis is focused on providing a fiscal year 2000 (FY00) summary overview of accomplishments, cost/schedule performance, and key integration activities.

Section A – Executive Summary. This section provides an executive level summary of Bechtel Hanford, Inc.'s (BHI) performance information from a FY00 perspective and is intended to bring to Management's attention that information considered to be most noteworthy. The Executive Summary begins with a description of notable accomplishments that are considered to have made the greatest contribution toward safe, timely, and cost-effective cleanup during FY00. Major commitments are summarized that encompass Hanford Federal Facility Agreement and Consent Order (Tri-Party Agreement) milestones and FY00 Management Commitment milestones. Safety statistics are also included. Issues that require management and/or regulator attention and resolution status are addressed. Fiscal year-end ERC Project cost and schedule variance analysis is summarized. The Key Integration Activities section highlights site activities that cross contractor boundaries and demonstrates the shared value of working as a team to accomplish the work. The Executive Summary ends with a listing of major upcoming planned key events within a 90-day period.

Section B – Restoring the River Corridor. This section contains more detailed FY00 activity information and performance status for the three projects within the 'Restoring the River Corridor' outcome. These three projects consist of the Remedial Action and Waste Disposal (RAWD) Project, Decommissioning Projects, and the Program Management and Support (PM&S) Project.

Section C – Transitioning the Central Plateau. This section contains more detailed FY00 activity information and performance status for the two projects within the 'Transitioning the Central Plateau' outcome. These two projects consist of the Groundwater/Vadose Zone (GW/VZ) Integration Project and the Surveillance/Maintenance and Transition (SM&T) Projects.

Information in this report is identified with a green, yellow, or red text box used as an indicator of the overall status. Green indicates work or issue resolution is satisfactory and generally meets or exceeds requirements; yellow indicates that significant improvement is required; and red indicates unsatisfactory conditions requiring immediate corrective actions.

Section A: Executive Summary

SECTION A – EXECUTIVE SUMMARY

Financial / Performance Measures data as of month-end September.
All other data as of October 26, 2000 (unless otherwise noted).

NOTABLE ACCOMPLISHMENTS:

Significant progress was achieved in all areas of Environmental Restoration (ER) Project activities during fiscal year 2000 (FY00). All 16 FY00 planned Tri-Party Agreement milestones were completed, as well as all three FY00 HQ management commitment milestones. In addition, one FY01 Tri-Party Agreement milestone (M-24-46, RCRA 2-well installation) was completed 15 weeks ahead of schedule. Further, all Environmental Management (EM) corporate performance measures were exceeded in every category. On May 22, Environmental Restoration Contractor (ERC) personnel reached one million hours worked without a lost workday injury. This was the fourth time that ERC achieved this milestone since the Hanford Site contract was awarded in July 1994. Following are more notable FY00 ER Project accomplishments that have been grouped into three categories: momentum, progress, and completion/removal. ER Project's top five accomplishments for FY00 are underlined for easy recognition. Additional ER accomplishments are identified in the following individual project sections.

RIVER CORRIDOR:

Momentum: *(how Hanford cleanup has been "sped up")*

Remediation activities were initiated at two new locations within the 100 Area. 100 F Area remediation activities commenced on July 10, twelve weeks ahead of schedule (satisfying Tri-Party Agreement Milestone M-16-13A). 100 N Area remediation activities were also initiated on July 21 (satisfying Hanford Site Resource Conservation and Recovery Act (RCRA) Permit requirements). The 100 Area Burial Ground Record of Decision (ROD) received regulator approval on September 25. All waste sites in the 100 Area are now covered under a ROD which signifies cleanup criteria and requirements have been established for the nine reactor areas along the Columbia River.

Green

Demolition of the remaining ancillary structures was completed for both F and DR Reactors, except for the F Reactor fuel storage basin (FSB) and DR Reactor FSB stairwells. Demolition of the F Reactor FSB began on September 25, and demolition of the DR Reactor stairwells began on October 20. F Reactor interim safe storage (ISS) is scheduled for completion in 2002 (one year ahead of schedule). DR Reactor ISS is scheduled for completion in 2001 (four years ahead of schedule).

D and H Reactor presurveys, walkdowns, estimates, and biological cleanup activities were completed, and all required D and H Reactors' engineering documents were issued for review prior to initiating ISS demolition activities in FY01 (accelerated from 2004 [D Reactor] and 2006 [H Reactor]).

Nine technology deployments were completed (FY00 HQ performance measure identified four technology deployments). These deployments were instrumental in providing efficiencies in the efforts of waste site remediation, reactor ISS, and Canyon Disposition Initiative (CDI) characterization activities.

Progress: *("things" achieved in terms of amounts or percentages)*

Over 579,000 metric tons (639,000 tons) of contaminated waste were removed in FY00 and disposed in the Environmental Restoration Disposal Facility (ERDF). To date, over 2.2 million metric tons (2.5 million tons) of contaminated waste have been removed and disposed at ERDF

NOTABLE ACCOMPLISHMENTS continued:

since disposal operations began in July 1996. An average of 125 waste containers is transported to ERDF daily from Hanford remediation sites.

Excavation was completed for 42 contaminated waste sites (FY00 U.S. Department of Energy (DOE) Headquarters (HQ) performance measure identified 41 waste sites). This brings the total waste sites cleaned up to 219 of the 1,547 identified to date (14%).

An average of 250 monthly entries was achieved (since February) into the 233-S Plutonium Concentration Facility with no lost workdays occurring. Confined workspace environments and contamination hazards are encountered during each entry where decommissioning activities are being performed.

Loadout hood dismantlement and decontamination activities were completed in the 233-S facility.

Dry cleanup and gross decontamination of the 233-S process hood floor were completed. A total of 51 polyjars (0.5 liter in size) containing loose material was collected.

Removal and disposal (to ERDF) of 59 meters (193 feet) of 233-S exhaust and supply roof duct were completed. A new work approach that allowed removal of larger duct sections improved efficiency and lowered worker safety risks.

A total of 19 lines was removed from the 233-S viewing room south end pipe trench.

HQ approval was received for the completed FY00 Baseline Update and Reconciliation change proposal. The Integrated Priority List for the FY02 budget submittal was also completed.

Green

FY01-FY03 Detailed Work Plan (DWP) management review meetings were conducted with BHI, DOE Richland Operations Office (RL), HQ, regulators, and stakeholders to reach agreement on future workscope. The FY01-FY03 DWP was approved on September 26. The seven-volume document establishes the basis for FY01 ER work execution.

The FY00 Small Business socioeconomic contractual goals were exceeded in all categories. All small, small disadvantaged, and women-owned small business prime contract goals have been met or exceeded for the entire six years of BHI's prime contract. In addition, this past year BHI was recognized as having the best small business statistics in Bechtel Systems and Infrastructure (parent company of BHI).

Completion/Removal: *(what's done and what's gone)*

Construction of ERDF Cells #3 and #4 was completed in December 1999 (satisfying Tri-Party Agreement Milestone M-16-92B). The two new cells doubled the capacity of waste storage at ERDF.

Remediation and backfill were completed for the contaminated liquid waste sites in the 100 B/C Area on February 25, five weeks ahead of schedule. 100 B/C Area remediation, which began in 1996, was the first remediation work activity initiated by the ERC towards meeting a Tri-Party Agreement milestone (Tri-Party Agreement Milestone M-16-08B due March 31). Only pipeline and burial ground remediation remains in the 100 B/C Area.

The B Reactor Museum Feasibility Assessment (Phase II) Project document was completed (satisfying Tri-Party Agreement Milestone M-93-05). Supplemental cost estimates for hazard mitigation were also completed, and work was initiated.

NOTABLE ACCOMPLISHMENTS continued:

Project closeout reports were completed for four facilities including the 108-F Biological Laboratory, 119-DR Exhaust Air Filter Sampling Building, 116-D and 116-DR exhaust stack demolitions. Demolition of these structures was accelerated from outyears and was completed in FY99. Submittal of the closeout reports formally constitutes completion of facility demolition.

A major sustained effort across all ERC projects and functional departments was focused on implementing, maintaining, and improving our Integrated Environment, Safety, and Health Management System (ISMS). Initial efforts focused on preparing for and supporting DOE verification of our ISMS and addressing opportunities for improvement. The Phase II verification audit, which was conducted by a DOE-led team, was successfully completed and resulted in no major findings.

Recognition was received from the Secretary of Energy with a Certificate of Appreciation for contributions to DOE's mission to prevent pollution in operations, processes, and programs.

CENTRAL PLATEAU:

Momentum: *(how Hanford cleanup has been "sped up")*

Utilizing a robotic crawler, the CDI drain header characterization was completed at U Plant (221-U Building) canyon facility in August. The robot traveled the equivalent of nearly three football fields to visually inspect the 61-centimeter (24-inch) diameter drain line for structural integrity, to obtain radiation readings, and to collect samples of contaminated materials within the line. Obtaining access to the planned 38 process cells was also completed.

Progress: *("things" achieved in terms of amounts or percentages)*

Green

Technical and management reviews of the System Assessment Capability (SAC) were completed resulting in validation of the approach being taken to develop the SAC and in the Groundwater/ Vadose Zone Integration Project Expert Panel support for the SAC activity. The SAC Rev. 0 software development and testing were also completed. The SAC is being designed to provide a cumulative assessment of the impacts and risks associated with Hanford Site contaminants.

Field activities were completed at the Vadose Zone Transport Field Study site in the 200 Area, and data interpretation also commenced. The main objectives of this field study are to evaluate the underground tank leak issues, improve vadose monitoring capabilities, identify key transport processes, and provide data for model verification.

FY00 ISRM Project activities were completed that included awarding the contract, constructing an evaporation pond, installing 16 wells, and initiating chemical barrier injections and withdrawals in 10 wells (satisfying a FY00 HQ Management Commitment Milestone). The subterranean chemical barrier is 31 meters (100 feet) deep and extends 198 meters (650 feet) between the DR Reactor and the Columbia River. By 2002, the barrier is expected to reach its final length of 702 meters (2,300 feet).

Phase I was completed for the 618-11 Burial Ground elevated tritium investigation. The 618-11 Burial Ground is located adjacent to a commercial nuclear reactor complex and is about 6 kilometers (3.5 miles) from the Columbia River. Phase I involved sampling and analysis of 22 wells for tritium and other constituents. Results indicated two areas of high concentrations of helium, which is a natural byproduct of the radioactive decay process of tritium. Phase II of the tritium investigation will include obtaining additional soil gas samples and two groundwater samples. The results of the additional tests will help determine if the helium is coming from a tritium source buried in the waste site or from tritium contamination in the groundwater.

NOTABLE ACCOMPLISHMENTS continued:

All five groundwater pump and treat systems operated above the planned 90% availability during FY00 (97% actual; 90% planned). The pump and treat systems remove contaminants (carbon tetrachloride, strontium, and chromium) from the groundwater and mitigate further migration to the Columbia River. Approximately 1.1 billion liters of groundwater were processed during FY00; over 4.3 billion liters of groundwater have been processed to date.

Plutonium loadout hood stabilization activities were completed in the REDOX facility which is located in the 200 Area.

Surveillance and maintenance (S&M) activities were initiated in the B Plant interior after Fluor Hanford (FH) completed required corrective actions to the building ventilation system. There was no evidence of any degradation due to the ventilation system being inoperable for more than ten months. No entry was allowed into the facility while the ventilation system was being repaired.

Green

Completion/Removal: *(what's done and what's gone)*

FY00 field characterization activities were completed for the 200-CW-1 Gable Mountain/B Pond Cooling Water Operable Unit. This included 12 test pits and one borehole. Significant cost savings resulted from utilizing prior-year lessons learned on this project.

Deactivation of the old 100 N Area water plant was completed, and construction and startup of the new replacement water plant was also achieved.

Legacy waste removal was completed at KE, KW, and H Reactors.

MAJOR COMMITMENTS:

Tri-Party Agreement Milestones:

Green

A total of 17 Tri-Party Agreement milestones were completed in FY00. All 16 planned FY00 Tri-Party Agreement milestones were achieved as of August; 15 ahead of schedule, and one behind schedule. In addition, one FY01 Tri-Party Agreement Milestone M-24-46 (due December 31, 2000), was completed on September 14, 15 weeks ahead of schedule.

Total Tri-Party Agreement Milestones Completed in FY00	***17***
Total FY00 Planned/Completed Through September	*16*
Total FY01 Completed (ahead of schedule) Through September	*1*

FY00 Management Commitment Milestones:

Green

Transmit Update of the Vadose Zone Science and Technology Roadmap (PBS VZ01) due April 30.

Status: *Complete. Draft was transmitted to RL on April 28.*

Install Wells and Initiate Injection of the Barrier for Phase I of the In Situ Redox Groundwater Remediation (PBS ER08) due September 30.

Status: *Complete (two months ahead of schedule). The 16-well installation was completed on April 24. Barrier injection was initiated on August 1.*

Complete the Semi-Annual Groundwater/Vadose Zone Report (December 1999 – March 2000) (PBS VZ01) due May 31.

Status: *Complete. Final document was transmitted to RL on May 31.*

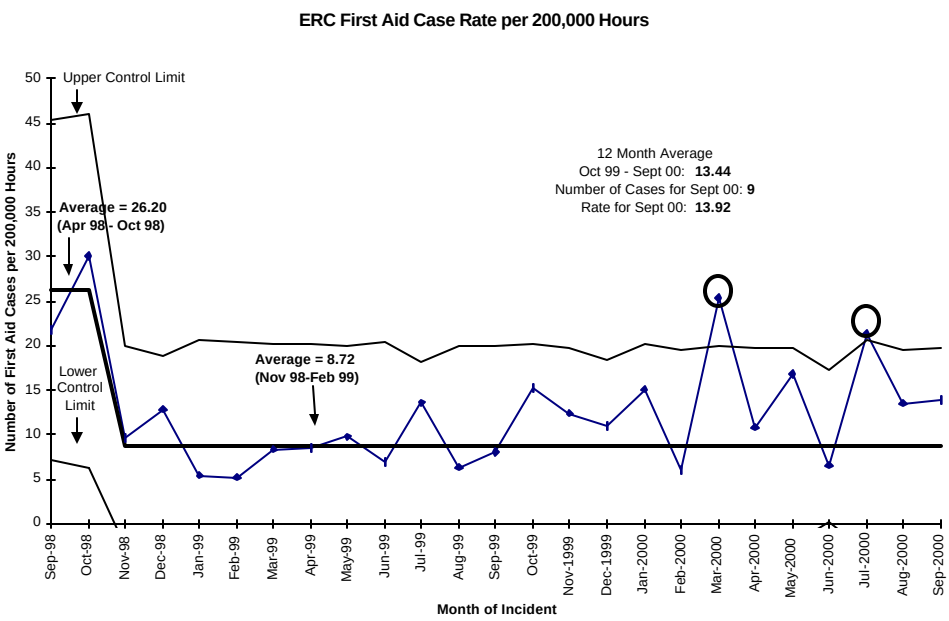
EM Corporate Performance Measures:

Green

	DWP FY00	FY00 Mgmt Commitments	Current Baseline	Forecast for FY00	Completed YTD
Waste Site Assessments	*121*	*167*	*168*	*168*	*168*
Waste Site Excavations	*24*	*41*	*43*	*42*	*42*
Technology Deployments	*0*	*4*	*4*	*9*	*9*
Facility Decommissioning	*0*	*0*	*4*	*4*	*4*

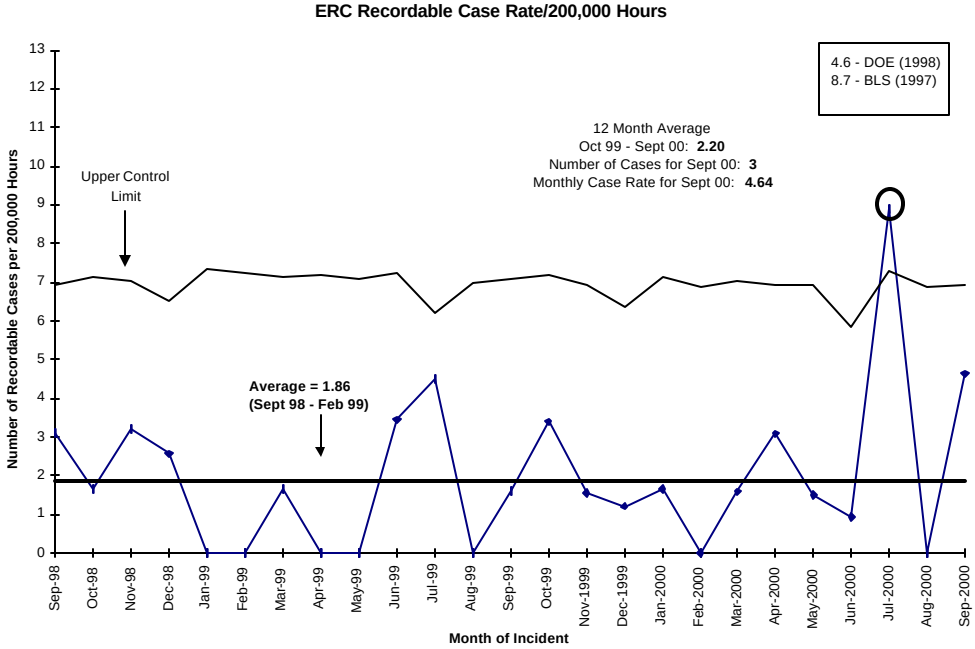
SAFETY/ISMS/CONDUCT OF OPERATIONS (Total ER Contract):

Yellow



For the third consecutive month, the ERC First Aid Case Rate is above the baseline average.

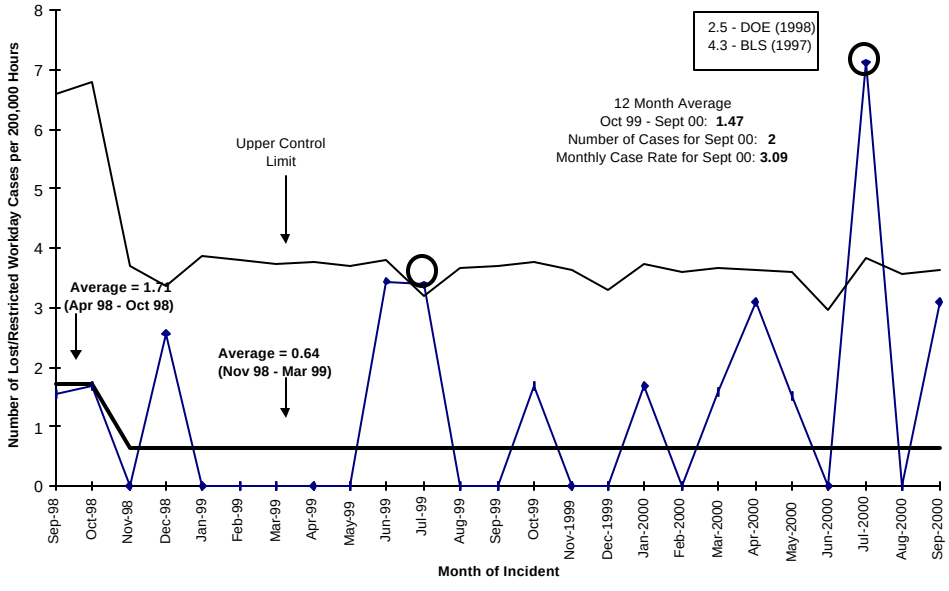
Yellow



The three recordable incidents in September caused the ERC Recordable Case Rate to climb above the baseline average.

SAFETY/ISMS/CONDUCT OF OPERATIONS (Total ER Contract) continued:

Yellow



The two restricted workday cases in September caused the ERC Lost/Restricted Workday Case Rate to climb above the baseline

SAFETY/ISMS/CONDUCT OF OPERATIONS (Total ER Contract) continued:

Safety:

	YTD	Current Month (Sept)	Current Month Comments
First Aid	*108*	*9*	*(2) sprains, (2) contusions, (1) laceration, (1) sting, (3) pain*
OSHA Recordable	*20*	*3 (includes the two below)*	*(1) Teamster working the swing shift was pulling on a bungee cord at the front of a full container. The bungee slipped off the hook, and the back of his upper arm hit a stack of pallets that was next to the container. He was examined at Kadlec and returned to work with prescription medication.*
Restricted Workday Case	*10*	*2*	*(1) RCT was pulling up on the metal bar to open the gate at 100 DR and pinched the left thumb between the metal stop and the metal bar. She was treated for a crushed/fracture to the thumb and restrictions were applied. (1) D&D worker was descending stairs with items in his arms. The wind kept blowing his hood over his face, making viewing difficult. He slipped on the stairs causing his left foot to turn inward. He was treated at a medical aid station. The first set of x-rays showed negative for a fracture and he returned to work with no restrictions. The incident became recordable/restricted after a visit to his personal physician who has prescribed physical therapy and light duty restrictions. The second x-ray performed several days later showed a fracture at the base of the little toe, normally called "Dancer's Fracture", and very common when side stepping of the foot.*
Lost Workday Case	*2*	*0*	*N/A*

Yellow

The ERC, as of October 21, 2000, reports 106,950 hours since the last lost workday incident. The incident occurred on April 20, 2000 and became a lost time on September 28, 2000.

SAFETY/ISMS/CONDUCT OF OPERATIONS (Total ER Contract) continued:

ISMS:

DOE EM Performance Agreement: *Develop and implement Integrated Safety Management (ISM) - September 30, 2000*

Green

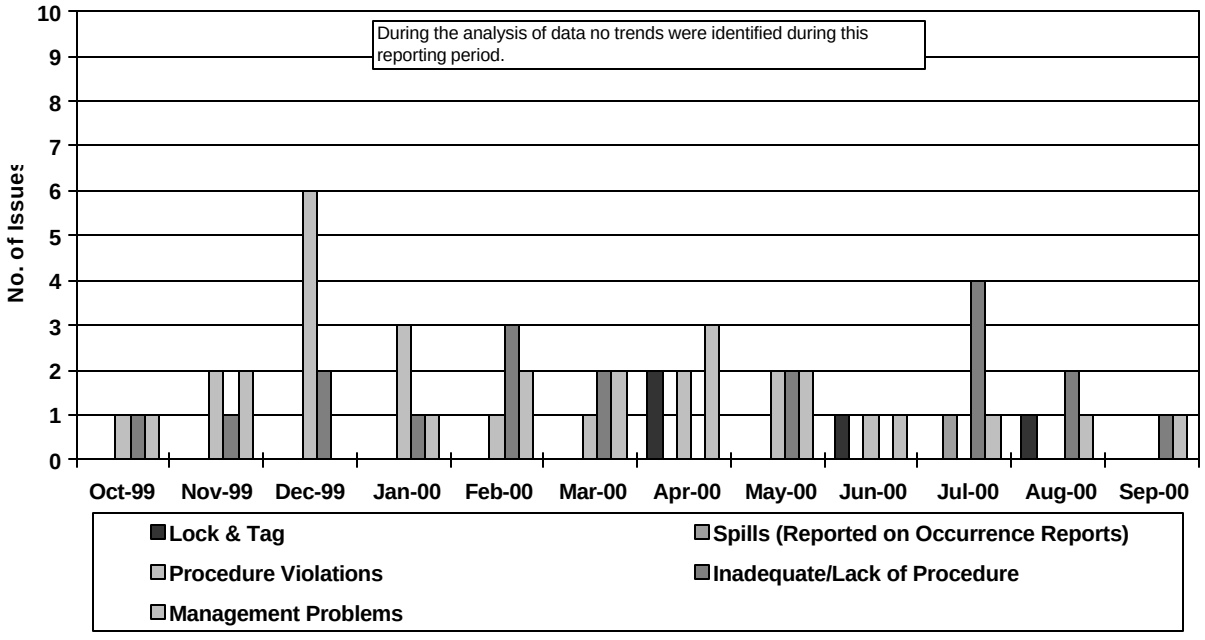
Status:

- *Completed all actions on the multi-discipline action plan for hazards evaluations.*
- *Continuous improvement and employee awareness of ISMS is ongoing through the ISMS Question of the Day Program.*
- *The Detailed Work Plan (DWP) for FY01 is approved. ISMS Program responsibility has been transitioned to the QS&H Department Manager.*
- *Work is ongoing to establish safety performance objectives, measures, and commitments for FY01.*

Conduct of Ops:

ERC-Corrective Action Tracking System (CATS) Trend Data 10/1/99 through 9/30/00

	Oct-99	Nov-99	Dec-99	Jan-00	Feb-00	Mar-00	Apr-00	May-00	Jun-00	Jul-00	Aug-00	Sep-00
Lock & Tag	0	0	0	0	0	0	2	0	1	0	1	0
Spills (Reported on Occurrence Reports)	0	0	0	0	0	0	0	0	0	1	0	0
Procedure Violations	1	2	6	3	1	1	2	2	1	0	0	0
Inadequate/Lack of Procedure	1	1	2	1	3	2	0	2	0	4	2	1
Management Problems	1	2	0	1	2	2	3	2	1	1	1	1



Each potential trend is reviewed and evaluated for impact on the project, and then given the appropriate level of attention based on a graded approach.

September Conduct of Ops Issues Continued on Next Page...

SAFETY/ISMS/CONDUCT OF OPERATIONS (Total ER Contract) continued:

September Conduct of Ops Issues:

Procedure Problems:

Condition Description: *Some documents are not identified as "Air Quality Documents as required by the BHI-EE-02 Environmental Requirements Manual". The types of records are the Effluent Record Sample Log (form BHI-TM-R127) and Effluent System Checklist (BHI-TM-R021). The RadCon supervisor stated that he was unaware of these requirements. The procedures (BHI-RC-04, Instruction 4.6 and BHI-RC-03, Procedure 7.1) were reviewed to ensure compliance with the documentation requirements contained within BHI-EE-02 and found to not contain the documentation requirements for identifying on the records "Air Quality Document" nor do they reference the EE-02 manual to obtain those requirements to prevent reoccurrence of this critical documentation requirements.*

Corrective Action Plan: *BHI-RC-04 Radiological Control Instructions Instruction 4.6 "Effluent Monitors Inspection and..." will be corrected to replace the "Air Quality Document" requirement and reference to BHI-EE-02. The procedure will also include steps for the RCT supervisor to ensure that the air quality documentation is in order. This revision will be accomplished by 11/30/00. RadCon will mark all appropriate forms "Air Quality Document" beginning immediately. The "alarm bell" notation will be added to these requirements. This notation was added to RadCon procedures following the last revision of the subject procedure. The notation has prevented other problems similar to this deficiency from occurring to other procedures.*

Green

Management Problems:

Condition Description: *On August 9, at approximately 10:45 a.m., 130 gallons of sodium dithionite (an injection chemical used for reduction/oxidation processes) was discharged to the ground. During routine operations, an operator was actuating valves called out by another operator. The operator actuating the valves misinterpreted a call to open the "GV" valve and instead opened the "BV" valve, which resulted in the discharge of the sodium dithionite. The quantity of chemical released to the ground was below reportable occurrence criteria. However, the operator error resulting in a valve misalignment led to a deviation from written procedures. Following a re-enactment of the event, the DOE Facility Representative suggested that the event be reported as a deviation from written procedures that resulted in adverse effects on performance of the ISRM process.*

Corrective Action Plan: *(1) Establish an Operations Engineering Group (reference field #30, Lessons Learned) to provide onsite technical support and oversight. Target Completion Date: 09/05/2000, Completion Date: 09/05/2000. (2) Install a check valve between the system and the chemical truck to prevent overflow. Target Completion Date: 10/01/2000, Completion Date: 10/01/2000. (3) Engineering staff discuss the valve positions with operators, providing directions to the operators in how to check valves to see if they are open or closed. Target Completion Date: 09/03/2000, Completion Date: 09/05/2000.*

Green

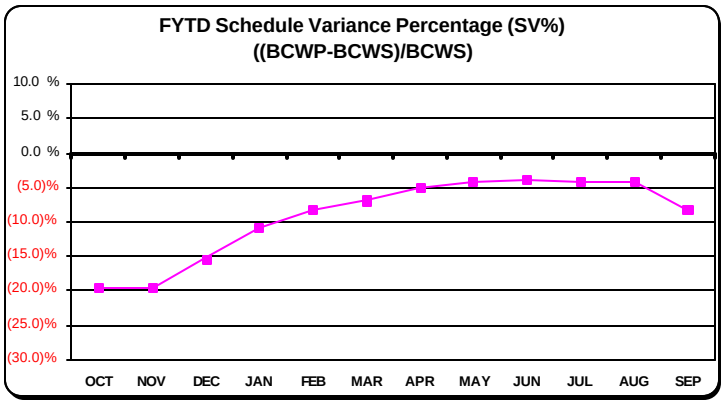
REGULATORY/EXTERNAL/DOE-RL & HQ ISSUES AND REQUESTS:

Refer to individual Project issues in the following Section B and Section C.

ENVIRONMENTAL MANAGEMENT PERFORMANCE REPORT
ENVIRONMENTAL RESTORATION
NOVEMBER 2000

TOTAL COST/SCHEDULE OVERVIEW (Total ER Contract):

Green

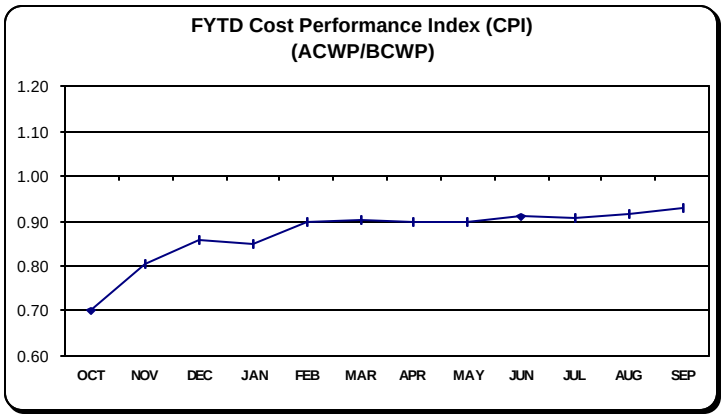


Desired performance is better than –10%.

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
DWP	11,612	10,506	10,211	12,760	10,155	10,793	12,259	10,599	10,197	12,389	10,820	12,798
DWP (Accum)	11,612	22,118	32,330	45,090	55,245	66,037	78,296	88,895	99,092	111,481	122,301	135,100
CURRENT PERIOD												
BCWS	14,558	8,508	12,288	15,102	13,068	13,445	15,190	12,158	12,771	12,681	10,838	23,682
BCWP	11,711	6,838	11,396	15,035	13,338	13,352	15,797	12,550	12,497	12,040	9,946	15,991
FISCAL YEAR TO DATE												
BCWS	14,558	23,066	35,354	50,456	63,524	76,969	92,159	104,317	117,089	129,769	140,607	164,289
BCWP	11,711	18,550	29,946	44,981	58,320	71,672	87,469	100,019	112,516	124,556	134,502	150,493
SV	(2,847)	(4,516)	(5,408)	(5,475)	(5,204)	(5,297)	(4,690)	(4,298)	(4,572)	(5,213)	(6,105)	(13,797)
SV%	-19.6%	-19.6%	-15.3%	-10.9%	-8.2%	-6.9%	-5.1%	-4.1%	-3.9%	-4.0%	-4.3%	-8.4%

For variance explanation by PBS, see Project Status Section of each project.

Green



Desired performance is 1.0 or less.

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	EAC w/ Carry Over
CURRENT PERIOD													
ACWP	8,190	6,786	10,729	12,465	14,171	12,199	14,037	11,240	12,477	10,680	10,282	16,615	
BCWP	11,711	6,838	11,396	15,035	13,338	13,352	15,797	12,550	12,497	12,040	9,946	15,991	
FISCAL YEAR TO DATE													
ACWP	8,190	14,976	25,705	38,170	52,341	64,540	78,577	89,818	102,295	112,975	123,257	139,872	
BCWP	11,711	18,550	29,946	44,981	58,320	71,672	87,469	100,019	112,516	124,556	134,502	150,493	
CV	3,521	3,574	4,240	6,811	5,978	7,131	8,892	10,201	10,222	11,581	11,245	10,621	
CPI	0.70	0.81	0.86	0.85	0.90	0.90	0.90	0.90	0.91	0.91	0.92	0.93	
EAC (Cumulative)	8,190	14,976	25,705	38,170	52,341	64,540	78,577	89,818	102,295	112,975	123,257	139,872	153,925
Yr End Budget Variance	1,967	3,638	4,793	5,074	5,521	5,482	6,206	7,693	8,781	10,679	10,929	10,365	

For variance explanation by PBS, see Project Status Section of each project.

TOTAL COST/SCHEDULE OVERVIEW (Total ER Contract) continued:

FY 2000 PERFORMANCE
FYTD SEPTEMBER 2000
($K)

	DWP BCWS	CURRENT BCWS	FYTD BCWS	FYTD BCWP	FYTD ACWP	YTD SCHEDULE VARIANCE $	YTD SCHEDULE VARIANCE %	YTD COST VARIANCE $	YTD COST VARIANCE %	*CPI	FY00 EAC
ER01 100 Area R/A	27,364	30,358	30,358	28,682	23,751	-1,676	-5.5%	4,931	17.2%	0.83	25,468
ER03 300 Area R/A	3,157	6,676	6,676	6,291	4,794	-385	-5.8%	1,497	23.8%	0.76	5,187
ER04 ER Waste Disposal	16,146	20,555	20,555	20,197	18,324	-358	-1.7%	1,873	9.3%	0.91	18,692
RA-Subtotal	**46,667**	**57,589**	**57,589**	**55,170**	**46,869**	**-2,419**	**-4.2%**	**8,301**	**15.0%**	**0.85**	**49,347**
ER02 200 Area R/A	3,534	3,592	3,592	3,497	2,456	-95	-2.6%	1,041	29.8%	0.70	2,553
ER08 GW Management	19,394	25,770	25,770	21,335	21,058	-4,435	-17.2%	277	1.3%	0.99	25,588
VZ01 GW/VZ	11,325	11,276	11,276	10,359	10,179	-917	-8.1%	180	1.7%	0.98	11,044
GW/VZ-Subtotal	**34,253**	**40,638**	**40,638**	**35,191**	**33,693**	**-5,447**	**-13.4%**	**1,498**	**4.3%**	**0.96**	**39,185**
ER06 D&D	8,446	17,129	17,129	15,420	15,376	-1,709	-10.0%	44	0.3%	1.00	17,141
DD-Subtotal	**8,446**	**17,129**	**17,129**	**15,420**	**15,376**	**-1,709**	**-10.0%**	**44**	**0.3%**	**1.00**	**17,141**
ER05 S&M	12,291	14,530	14,530	13,338	13,093	-1,192	-8.2%	245	1.8%	0.98	14,372
ER07 Long-Term S&M	47	46	46	46	39	0	0.0%	7	15.2%	0.85	38
SM-Subtotal	**12,338**	**14,576**	**14,576**	**13,384**	**13,132**	**-1,192**	**-8.2%**	**252**	**1.9%**	**0.98**	**14,410**
ER10 ERC PM&S	27,597	28,522	28,522	26,775	26,248	-1,747	-6.1%	527	2.0%	0.98	28,007
ER10 RL PM&S	5,800	5,835	5,835	4,553	4,553	-1,282	-22.0%	0	0.0%	1.00	5,835
PM-Subtotal	**33,397**	**34,357**	**34,357**	**31,328**	**30,801**	**-3,029**	**-8.8%**	**527**	**1.7%**	**0.98**	**33,842**
GRAND TOTAL	**135,101**	**164,289**	**164,289**	**150,493**	**139,871**	**-13,796**	**-8.4%**	**10,622**	**7.1%**	**0.93**	**153,925**

Green

**CPI = ACWP/BCWP*

Cost/Schedule Status:

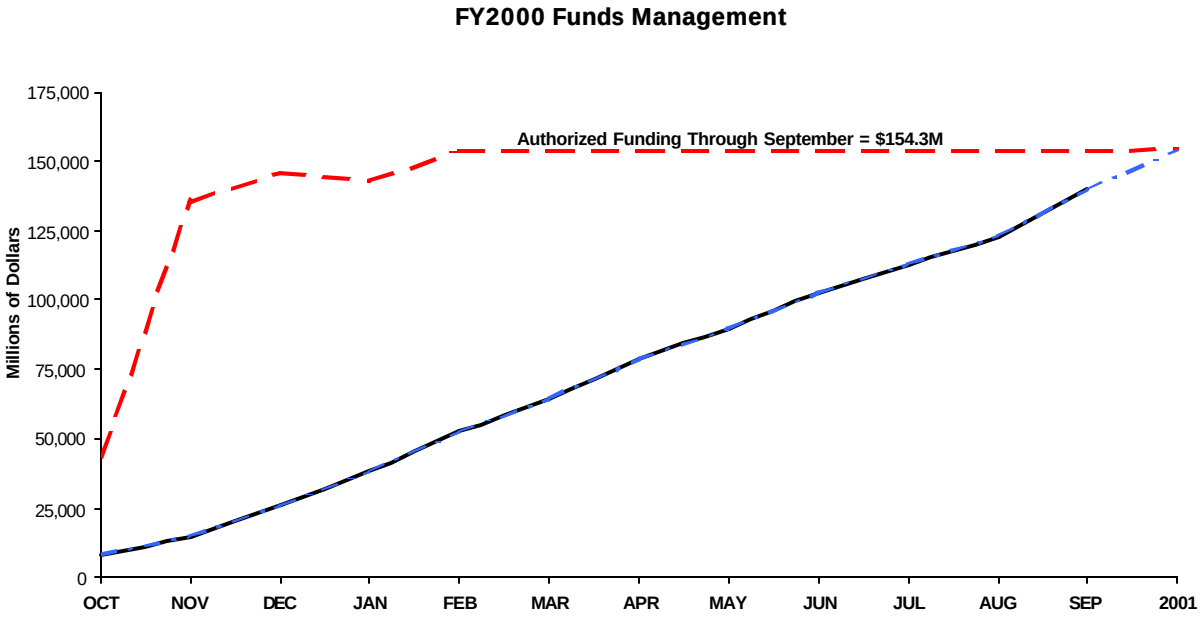
Cost Variance Summary

At FY00 end, the ER Project had performed $150.5M worth of work, at a cost of $139.9M. This results in a favorable cost variance of $10.6M (+7.1%). The positive cost variance is attributed to ERDF cover design and construction/transportation underruns, utilization of more efficient asbestos abatement methods (asbestos and piping removed/disposed concurrently), savings in soil sampling and analyses by using local laboratory and onsite resources, F Area remediation savings in site preparation and reallocating resources between the F and H Areas, savings in Landfill 1A/1B remediation (such as working two sites concurrently), efficiencies learned in prior work applied to Gable Mountain and B Pond test pit trenching, fewer resources utilized than planned for GW/VZ Science and Technology (S&T) and Characterization of Systems, significantly lower F and DR Reactor ISS sample analysis costs than planned due to utilizing larger data groups (economies of scale), underruns on B Plant S&M and Radiation Area Remedial Action (RARA) stabilization. Underruns were utilized to perform other ER work.

Schedule Variance Summary

The ER Project ended FY00 $13.8M (-8.4%) behind schedule. [Efficiencies allowed for approval/initiation of approximately $5.0M multi-year superstretch and other remediation in FY00 with most of the work planned for FY01 (planned schedule variance/carryover). After adjustment for this work, the net negative schedule variance would be $8.8M (5.5%)]. The negative schedule variance is attributed to remediation backfill delays pending resolution of differing chromium sample laboratory results, 100 DR south pipeline confirmation sampling behind schedule due to design preparation delays, 300 Area contract award for drum removal deferred due to bidder request, GW/VZ Characterization of Systems delayed due to resource availability, 200-ZP-2 well deepening and B Reactor hazards mitigation work were approved late in FY00 with completion scheduled for FY01 (planned carryover), initiation of approved Superstretch work which will continue into FY01 (planned carryover workscope), and late billings for RL site-wide assessments.

TOTAL COST/SCHEDULE OVERVIEW (Total ER Contract) continued:



PBS	PBS Title	Authorized Funds	ACWP	Funding Carryover
RL-ER01	100 Area Remediation	$25,969,999	$23,751,023	$2,218,976
RL-EL02	200 Area Remediation	$3,130,000	$2,456,402	$673,598
RL-ER03	300 Area Remediation	$5,827,400	$4,800,187	$1,027,214
RL-ER04	Waste Disposal Facility	$19,339,999	$18,324,084	$1,015,915
RL-ER05	S&M - Facility Transitioning	$14,335,000	$13,092,640	$1,242,360
RL-ER06	Decommissioning Project	$17,150,000	$15,375,877	$1,774,123
RL-ER07	Post Closure - S&M	$60,900	$38,588	$22,312
RL-ER08	Groundwater Management	$13,795,730	$11,140,120	$2,655,610
RL-ER08	Groundwater Management LI	$778,868	$654,377	$124,491
RL-ER09	N. Basin Cleanup	$3,173	$349	$2,824
RL-ER10	Program Management & Support	$26,989,858	$26,247,800	$742,058
RL-VZ01	GW/Vadose Zone Integration Project	$6,370,000	$5,407,853	$962,147
S/Total BHI		**$133,750,927**	**$121,289,299**	**$12,461,628**
RL-VZ01	GW/Vadose Zone (PNNL)	$4,585,334	$4,574,200	$11,134
RL-ER03	300 Area Remediation (PNNL)	$0	$0	$0
RL-ER08	Groundwater Monitoring (PNNL)	$9,693,363	$9,270,485	$422,878
S/Total PNNL		**$14,278,697**	**$13,844,685**	**$434,012**
RL-ER03	300 Area Remediation (USFWL)	$6,546	$6,546	$0
RL-ER08	Groundwater Mgmt (RL)	$6,595	$6,595	$0
RL-ER10	Program Management & Support (RL)	$5,834,838	$4,553,340	$1,281,498
RL-VZ01	GW/Vadose Zone (RL)	$407,586	$196,713	$210,873
S/Total RL		**$6,229,283**	**$4,736,912**	**$1,492,371**
Total ER		**$154,258,907**	**$139,870,896**	**$14,388,011**

TOTAL COST/SCHEDULE OVERVIEW (Total ER Contract) continued:

FY2000 Schedule Carryover

Bechtel Hanford, Inc. ($000's)	Schedule Carryover
100-DR south pipeline confirmation sampling and backfill	310.8
100-HR closeout verification packages	60.1
100-FR remedial actions (pipe cutting)	103.9
JA Jones and 600-23 sites remedial design, remedial action	1,243.0
S/T 100 Area Remedial Action (ER01)	**1,717.8**
618-4 burial ground procurement package	363.0
300-FF-2 ROD support	30.1
S/T 300 Area Remedial Action (ER03)	**393.1**
ERDF transportation & waste disposal for JA Jones and 600-23 sites (*superstretch*)	345.1
ERDF vegetation for the interim cover	18.0
S/T ERDF (ER04)	**363.1**
Dismantle & remove the irrigation system from the Hanford prototype barrier	76.3
200 Area RI/FS on 200-CW-1 and 200-PW-2	20.1
S/T 200 Area Characterization (ER02)	**96.4**
200-ZP-1 platform / valve upgrade	57.8
200-ZP-2 PITT well deepening	368.7
RCRA well installation	1,531.9
Well decommissioning (*superstretch*)	1,310.2
Well maintenance, tritium sample collection	433.9
S/T Groundwater Management (ER08)	**3,702.5**
Peer review (incl expert panel meeting #8)	258.1
Characterization of systems	287.8
System assessment capability (SAC revision 1)	17.0
S/T Groundwater Vadose Integration (VZ01)	**562.9**
B Reactor roof repair, H Reactor legacy waste disposal, asbestos sample collection & analysis	79.9
B Reactor hazards mitigation	467.8
200 Area S&M; REDOX maintenance, U Plant fan motor refurbishment, 221-U canyon roof repair	461.1
Canyon dispostion initiative	116.7
Nuclear facility support; B Plant SAR implementation, IMUST SAP, PUREX BIO update	104.0
S/T S/M&T (ER05)	**1,229.5**
233-S; loadout hood dismantlement, work package development, loading & shipping of roof duct waste, ventillation engineering / modification	179.4
F Reactor fuel storage basin (*superstretch*); Reactor ISS engineering, EE/CA, RAW	1,065.6
Procure BROKK excavator	363.1
D Reactor ISS; backfill valve pit & fuel storage basin, microwave tower installation	151.2
S/T Decommissioning Projects (ER05)	**1,759.3**
Subcontract to improve site closure process	64.9
Disposal of chemical wastes from building 3728, management of HEIS/WIDS databases	143.6
Regulatory support to air operating permit	75.3
Complete general design criteria document	40.8
Restructuring for staff reductions, baseline management	15.1
Performance fee on base scope (forecast less FY2000 accrual)	543.9
Performance fee on JA Jones / 600-23, F-Reactor, well decommissioning (*superstretch*)	750.0
RAD counting facility equipment	24.4
Scanning backlog of radiological records in document control	93.2
Revisions to Safety & Health programmatic documents (i.e. Industrial Hygiene Program)	22.3
S/T BHI Program Management & Support (ER10)	**1,773.5**
Total Bechtel Hanford, Inc.	**11,598.1**
PNNL ($000's)	
Groundwater vadose zone science & technology; soil waste inventory, field investigations, vadose transport field study	278.7
Groundwater modeling, monitoring (technical planning, sample collection, offsite analysis, interpretation & reporting, strategic planning hydrologic assessment), Support well installation	784.5
Total PNNL	**1,063.2**
DOE-RL - ER10 ($000's)	
Program management & support; Compliance oversight, site-wide services, laundry support, etc.	1,368.2
Total DOE-RL	**1,368.2**
Total (BHI, PNNL, DOE-RL)	**14,029.4**

PERFORMANCE OBJECTIVES:

See following individual Project sections.

KEY INTEGRATION ACTIVITIES:

Following is a summary of significant cross-cutting integration activities accomplished during FY00. Refer to additional individual Project key integration activities noted in the following Section B and Section C.

Cross-Cutting:

RL WBS/PBS Restructuring: *BHI teamed with site contractors to support DOE-RL in development of a "Schedule Options Study" and provided support to DOE-RL in the restructuring of the Hanford Site Work Breakdown Structure. BHI supported both the River Corridor and Central Plateau baseline teams. BHI supported development of the Budget Update Guidance (BUG) Phase II, which includes details developing this baseline update based on the revised PBS/WBS, formatted to address the site outcomes.*

300 Area Acceleration: *BHI supported FH in the development of an accelerated closure plan. BHI provided the technical volumes for D&D and Remedial Action. These technical volumes included scope, schedule, cost, and the methodology of estimating. BHI assisted in the final write-up of the FH deliverable to RL. FH delivered the final product to DOE-RL and presented the final product to the Site Management Board on July 17. Positive comments about the product were made and verbal recognition was given to the FH, BHI and PNNL integrated team.*

DOE and Bechtel Staff Recognized for Pollution Prevention Efforts: *In late July, U.S. Secretary of Energy Bill Richardson recognized several Department of Energy and Bechtel Hanford, Inc. employees for their waste minimization and pollution prevention accomplishments at Hanford. The DOE recognition acknowledged BHI's waste minimization and pollution prevention activities over the last several years. Recent accomplishments at Hanford included reducing the amount of waste by more than 300,000 tons and avoiding costs of nearly $50M in 1999. BHI successfully implemented the largest source reduction project in the DOE complex in 1999. It involved extensive characterization of 417 waste sites. As a result, 129 sites were reclassified, enabling BHI to reduce the amount of low-level radioactive waste requiring treatment by nearly 65,000 cubic yards and avoiding costs of more then $36M. This single effort reduced more waste than all of the combined source reduction projects implemented throughout the DOE complex in 1998. Source reduction projects reduce pollution or waste generated at this source. The use of new technology and value engineering assessments was cited as a reason for effectiveness of site characterization efforts, which resulted in substantial cost savings to the U.S. government and taxpayers. The DOE recognition also acknowledged BHI's 100 percent compliance with efforts "affirmative procurement" requirements, which direct the purchase of supplies and products made from recovered or recycled materials.*

Excavation at Wanapum Cache Site: *The Wanapum tribe requested ER support for trenching to uncover the remains of three Wanapum cellars used to store fishing gear, camp items, and preserved foods relating to a traditional fishing village last occupied in 1943. The area being excavated is on the terrace of the Columbia River southeast of the 100-H Area. Excavations were conducted in shallow lifts of approximately 10 cm to prevent damaging materials of interest to the fullest extent possible. Materials of interest are defined as "Objects of Cultural Patrimony" under the provisions of the Native American Graves Protection and Repatriation Act.*

Green

UPCOMING PLANNED KEY EVENTS:

Tri-Party Agreement Milestone M-13-25, Submit Uranium Rich Process Waste Group (200-PW-2) Work Plan, due 12/31/00.

Tri-Party Agreement Milestone M-13-00K, Submit 1 200 NPL RI/FS (RFI/CMS) Work Plan, due 12/31/00.

Tri-Party Agreement Milestone M-16-27A, Complete 100-HR-3 Phase I, ISRM Barrier Emplacement, due 12/31/00.

Tri-Party Agreement Milestone M-24-47, Install 4 Additional Wells at SST WMA T, due 12/31/00.

Tri-Party Agreement Milestone M-24-48, Install 4 Additional Wells at SST WMA TX-TY, due 12/31/00.

Tri-Party Agreement Milestone M-24-00L, Install RCRA Groundwater Monitoring Wells Up to 50 in CY 2000, due 12/31/00.

Green

Richland Operations Office

Environmental Restoration

Environmental Management Performance Report

Section B - River Corridor Information

November 2000

- **Remedial Action and Waste Disposal Project**
- **Decommissioning Projects (Interim Safe Storage and 233-S)**
- **Program Management and Support**

Focused on Progress...

Focused on Outcomes!

Department of Energy

Richland Operations Office

Bechtel Hanford, Inc.

Environmental Restoration Contractor

E0003099.2

Remedial Action and Waste Disposal Project (RAWD)

SECTION B – RESTORING THE RIVER CORRIDOR

**Financial / Performance Measures data as of month-end September.
All other data as of October 26, 2000 (unless otherwise noted).**

Remedial Action & Waste Disposal Project (RAWD):

ACCOMPLISHMENTS: *RAWD*

FY00 SUMMARY

Following is a summary of significant Remedial Action and Waste Disposal Project accomplishments achieved during FY00. The FY00 accomplishments are grouped into three categories: momentum, progress, and completion/removal. The Project's top five accomplishments are underlined for easy recognition.

Momentum: *(how Hanford cleanup has been "sped up")*

Initiated 100 F Area remediation activities on July 10, twelve weeks ahead of schedule (satisfying Tri-Party Agreement Milestone M-16-13A). 100 N Area remediation activities were also initiated on July 21(satisfying Hanford Site RCRA Permit requirements). The 100 Area Burial Ground ROD received regulator approval on September 25. All waste sites in the 100 Area are now covered under a ROD which signifies cleanup criteria and requirements have been established for the nine reactor areas along the Columbia River.

Progress: *("things" achieved in terms of amounts or percentages)*

Removed over 579,000 metric tons (639,000 tons) of contaminated waste in FY00 and disposed in ERDF. To date, over 2.2 million metric tons (2.5 million tons) of contaminated waste have been removed and disposed at ERDF since disposal operations began in July 1996.

Completed excavation of 42 contaminated waste sites (FY00 HQ performance measure identified 41 waste sites). This brings the total waste sites cleaned up to 219 of the 1,547 identified to date (14%).

Green

Completed 168 waste site assessments (FY00 HQ performance measure identified 167 assessments). This brings the total assessments completed to 797 of the 1,547 identified to date (52%).

Issued a request for proposal to potential bidders for 100 B/C Area pipeline remediation on August 23. Bid proposals were received on September 29, and technical reviews are underway.

Completed soil (including plumes) and pipeline excavation activities in the 100 D Area in July. Over 643,000 metric tons (709,000 tons) of contaminated waste were removed and disposed in ERDF since work began in the 100 D Area in November 1996.

Completed soil (including plumes) and pipeline excavation activities in the 100 H Area in July. Since 100 H Area remediation work began in March 1999, 408,000 metric tons (450,000 tons) of contaminated waste were removed and disposed in ERDF.

Completed contaminated soil excavation (including plumes) in the 300-FF-1 Operable Unit. Excavated areas included Landfills 1A, 1B, 1D and the South Process Pond. Over 481,000 metric tons (531,000 tons) of contaminated waste were removed and disposed in ERDF since 300 Area remediation activities began in July 1997. Only the 618-4 Burial Ground remains to be remediated.

ACCOMPLISHMENTS continued: *RAWD*

Initiated procurement activities for the treatment of the 618-4 Burial Ground drummed uranium waste (located in the 300 Area). Bid proposals were submitted in August, and technical reviews are underway. These drums, which contain depleted uranium shavings and oil from past fuel production, were unearthed in 1998 during excavation of the burial ground.

Completed Rev. 0 of the 300-FF-2 Operable Unit FFS and Proposed Plan, and also supported public comment meetings.

Deployed a geo-probe with a sodium iodide detector for in situ characterization at the 126-F-1 ash pit remediation site, resulting in a potential 50% reduction of waste. The project utilized EM-70 return-on-investment funds to deploy this technology.

Transported and disposed the first Spent Nuclear Fuel waste shipment from K Basin into ERDF during June.

Placed the first waste shipment into ERDF Cell #4 in June.

Completed installation of an interim cover over ERDF Cells #1 and #2. The interim cover is a vapor barrier covered with fill dirt and grass.

Traveled over 7 million kilometers (4.4 million miles) transporting contaminated waste to ERDF without an at-fault accident (one truck rear-ended by non-ER vehicle in July.) This safety record exceeds the industry standard.

Green

Completion/Removal: *("what's done and what's gone")*

Completed construction of ERDF Cells #3 and #4 in December 1999 (satisfying Tri-Party Agreement Milestone M-16-92B). The two new cells doubled the capacity of waste storage at ERDF.

Completed remediation and backfill of contaminated liquid waste sites in the 100 B/C Area on February 25, five weeks ahead of schedule. 100 B/C Area remediation, which began in 1996, was the first remediation work activity initiated by the ERC towards meeting a Tri-Party Agreement milestone (Tri-Party Agreement Milestone M-16-08B due March 31). Only pipeline and burial ground remediation remains in the 100 B/C Area.

Completed backfill operations for the Group 2 waste sites (DR high-priority, near-river sites) and pipeline segments.

Transferred 32 metric tons (35 tons) of excess steel rail to a local railcar repair facility for reuse. The rail was removed from the 300 Area South Process Pond to accommodate plume remediation. This activity supported RL's economic development and waste minimization programs.

Completed ERDF disposal of Pacific Northwest National Laboratory (PNNL) 331-A Building demolition waste in February. This was the first non-ER waste disposal into ERDF.

SAFETY/ISMS/CONDUCT OF OPERATIONS: *RAWD*

See Executive Summary.

BREAKTHROUGHS/OPPORTUNITIES FOR IMPROVEMENT: *RAWD*

Following is a summary of significant breakthroughs identified during FY00:

Green

Waste Minimization 126-F-1 Ash Pit: *The project deployed two off-the-shelf technologies (geo-probe and sodium iodide detector) to perform in-situ characterization that resulted in 50% reduction in waste site volume. Preliminary cost savings is estimated at $5M.*

LONG-TERM (6 MONTHS PLUS) IMPORTANT ITEMS: *RAWD*

Following is a summary of significant long-term important items identified during FY00:

Green

100 Area Burial Grounds: *The Environmental Protection Agency (EPA) signed the Record of Decision for the 100 Area Burial Ground on September 25. This is the last ROD required for 100 Area Remediation.*

MAJOR COMMITMENTS (FISCAL YEAR PLUS 6 MONTHS): *RAWD*

- ***DOE Secretarial:***

None identified at this time.

- ***DOE EM Performance Agreement:***

None identified at this time.

MAJOR COMMITMENTS (FISCAL YEAR PLUS 6 MONTHS): *RAWD*

- ***TPA Milestones:***

Milestone	Description	Due Date	(F) / (A) Date
M-15-23B	*Submit 300-FF-2 Focus Feasibility Study (FFS) and Proposed Plan for Regulator Review*	*11/30/99*	*11/22/99 (A)*
M-15-00B	*Complete all 300 Area Operable Unit Pre-ROD Site Investigations under Approved Work Plan Schedules*	*12/31/99*	*11/22/99 (A)*
M-16-92B	*ERDF Cells 3 & 4 Ready to Accept Remediation Waste*	*12/31/99*	*12/09/99 (A)*
M-15-00A	*Complete all Remaining 100 Area Operable Unit Pre-ROD Site Investigations under Approved Work Plan Schedules (100-KR-2, 100-KR-3, 100-FR-2, 100-IU-2, and 100-IU-6)*	*12/31/99*	*12/21/99 (A)*
M-16-08B	*Complete Remediation and Backfill of 19 Waste Sites in the 100-BC-1 and 100-BC-2 Operable Units as Defined in the Remedial Design Report/Remedial Action Work Plan for the 100 Area*	*3/31/00*	*2/25/00(A)*
M-16-13A	*Initiate Remedial Action for 100-FR-1 Operable Unit*	*9/29/00*	*7/10/00 (A)*
****M-16-26B***	*Complete Remediation, Backfill and Revegetation of 51 Liquid Waste Sites and Process Effluent Pipelines in the 100-BC-1, 100-BC-2, 100-DR-1, 100-DR-2, and 100-HR-1 Operable Units as defined in the Remedial Design Report/Remedial Action Work Plan for the 100 Area (DOE/RL-96-17)*	*2/28/01*	*2/25/05 (F)*

Green

**Unrecoverable due to funding constraints. Bid proposals were received on September 29 for the 100 B/C pipeline remediation, and are being evaluated. A Tri-Party Agreement change request is being prepared that proposes a new milestone date be established by January 31, 2001, after the subcontract has been awarded.*

- ***DNFSB Commitment:***

None identified at this time.

PERFORMANCE OBJECTIVES: *RAWD*

Outcome	Performance Indicator	Status
Restore the River Corridor for Multiple Uses	*100/300 Area waste excavation, disposal and backfill/regrade.*	*Baseline work has been completed per Performance Incentive (PI) requirements.*

Green

PERFORMANCE MEASURES: *RAWD – (River and Plateau)*

	DWP FY00	FY00 Mgmt Commitments	Current Baseline (Incl. Baseline Changes)	Forecast For FY00	Completed YTD
Waste Sites	*24*	*41*	*43* [a]	*42* [a]	*42*
100 Area Burial Ground Assessments	*0*	*46*	*47*	*47*	*47*
300-FF-2 Assessments	*119*	*119*	*119*	*119*	*119*
Other Assessments	*2*	*2*	*2*	*2*	*2*
Tons	*389K*	*N/A*	*654K* [b]	*642K* [b]	*639K*

Green

[a] *Lab results indicate that two sites at 100 H will require some additional excavation in FY01.*
[b] *JA Jones and 600-23 (Superstretch work) will be carried over into FY01.*

STRETCH AND SUPERSTRETCH GOALS: *RAWD*

FY00 RAWD "Stretch" Goals	Scope Dollars (K)	Approved BCPs (K)
Perform Excavation in Unfunded Sites in 100 B/C, HR-1, FR-1, 100, and 300 Area and Plumes:		
(1) Extended Plumes at 316-1 S Pond (BCP-20043)		*$1,202.8K*
(2) Additional Plumes at 100-DR (BCP-20050)		*$905.8K*
(3) Additional Plumes at 100-HR (BCP-20119)		*$240.3K*
(4) Additional Plumes at 100-HR (BCP-20130)		*$425.0K*
(5) Additional Plumes at 300-FF (BCP-20113)		*$669.4K*
(6) Additional Plumes at 100-DR (BCP-20116)		*$175.2K*
(7) Defer Backfill at 100-DR (BCP-20166)		*($93.2K)*
(8) Additional Plumes at 100-DR (BCP-20189)		*$124.9K*
(9) Additional Plumes at 100-DR (BCP-20215)		*$101.1K*
S/Total Remedial Action Stretch Goals:	***$4,560.0K***	***$3,751.2K***

Green

FY00 RAWD "Superstretch" Goals	Scope Dollars (K)	Approved BCPs (K)
Complete Remediation of 60 Sq. Mi. of Hanford Site:		
(1) Complete Remediation of Hanford Townsite	*$755.0K*	*$0.0K*
(2) Complete Remediation of JA Jones Pit #1 and 600-23 (300-FF-2) *	*$1,500.0K*	*$1711.7K*
(3) Other Remedial Actions	*$1,395.0K*	*$0.0K*
S/Total Remedial Action Superstretch Goals:	***$3,650.0K***	***$1711.7K***

Red *

Green

Red **

**Status: BCP-20270 endorsed by DOE-RL Assistant Manager for Environmental Restoration & Waste Management (AMEW) for $1,707.1K on August 10. Work is scheduled for completion.*

***Efficiencies applied to Superstretch projects in Groundwater Management and Decommissioning Projects.*

PROJECT STATUS (COST/SCHEDULE/MAJOR BASELINE CHA NGE: *RAWD*

- ***Schedule:***

Remedial Action & Waste Disposal Project	BCWS	BCWP	Variance
	$K	$K	$K
ER01 100 Area Remedial Actions	*30,358*	*28,682*	*-1,676*
ER03 300 Area Remedial Actions	*6,676*	*6,291*	*-385*
ER04 ER Waste Disposal	*20,555*	*20,197*	*-358*
TOTAL Remedial Actions	***57,589***	***55,170***	***-2,419***

Green

PBS-ER01 – 100 Area Remedial Action
*Schedule Variance = -**$1676K; -5.5%** [Last Month: -$669K; -2.5%]*

Cause: *100-DR south pipeline confirmation sampling behind schedule due to design document preparation delays; start of DR north pipeline backfill delayed pending resolution of differing chromium lab results; efficiencies allowed Superstretch remediation sites (JA Jones and 600-23) to be initiated in FY00, but major work activities are in FY01 (planned SV/carryover).*

Resolution: *South pipeline sampling design has been completed and variance sampling is in progress. Confirmation sampling will be carried over for completion in early FY01.*

PBS-ER03 – 300 Area Remedial Action
*Schedule Variance = -**$385K; -5.8%** [Last Month: -$233K; -3.7%]*

Cause: *Procurement package for drum disposal is behind schedule due to additional evaluation time requested by the prospective bidders. 300-FF-1 verification packages on hold pending regulator determination of format revision.*

Resolution: *Project unable to recover procurement delay. RL working with regulators on package requirements; remaining work will be carried over to FY01 for completion.*

PBS-ER04 – Environmental Restoration Waste Disposal
*Schedule Variance = -**$358K; -1.7%** [Last Month: +$60K; +0.3%]*

Cause: *Waste disposal for JA Jones and 600-23 multi-year Superstretch sites scheduled for FY01.*

Resolution: *None required, workscope will be carried over to FY01 for completion.*

PROJECT STATUS (COST/SCHEDULE/MAJOR BASELINE CHANGE continued: *RAWD*

- ***Cost:***

Remedial Action & Waste Disposal Project	BCWP $K	ACWP $K	Variance $K
ER01 100 Area Remedial Actions	*28,682*	*23,751*	*4,931*
ER03 300 Area Remedial Actions	*6,291*	*4,794*	*1,497*
ER04 ER Waste Disposal	*20,197*	*18,324*	*1,873*
TOTAL Remedial Actions	***55,170***	***46,869***	***8,301***

Green

PBS-ER01 – 100 Area Remedial Action
Cost Variance = ***+$4931K; +17.2%*** *[Last Month: +$4166K; +16.3%]*

Cause: *More efficient asbestos abatement methods utilized (asbestos and piping removed and disposed concurrently) in 100 D and H Areas; savings in sampling and analyses by using local laboratory and on-site resources; F Area savings in site prep and reallocating resources between F and H Areas; labor savings on B/C backfill activities; lower costs for 116-N-1 design.*

Resolution: *Savings were used to perform other remediation work.*

PBS-ER03 – 300 Area Remedial Action
Cost Variance = ***+$1497K; +23.8%*** *[Last Month: +$1314K; +21.4%]*

Cause: *Savings in Landfill 1A/1B remediation (such as working two sites concurrently, less down time, less Level B protection); FY99 accrual reversal in South Process Pond remediation.*

Resolution: *Savings were used to perform other remediation work.*

PBS-ER04 – Environmental Restoration Waste Disposal
Cost Variance = ***+$1873K; +9.3%*** *[Last Month: +$2157; +11.4%]*

Cause: *ERDF cover design and construction closeout completed with fewer resources than planned, transportation cost efficiencies from mild winter; and FY99 over accrual.*

Resolution: *Savings were used to perform other remediation work.*

REGULATORY ISSUES: *RAWD*

A number of significant issues were identified and resolved during FY00. Those remaining at fiscal year end include:

Tri-Party Agreement Milestone M-16-26B: *An outyear milestone, M-16-26B, "Complete Remediation, Backfill, and Revegetation of 51 Liquid Waste Sites and Process Effluent Pipelines in the B/C, DR, and HR Operable Units" by February 28, 2001, will need to be renegotiated due to lack of funding in FY99 and FY00 for 100 B/C pipeline remediation activities, and the arsenic issue at the 100 H Area.*

Green

Status: *Bid proposals were received on September 29 for the 100 B/C pipeline remediation, and are being evaluated. A Tri-Party Agreement change request is being prepared that proposes a new milestone date be established by January 31, 2001, after the subcontract has been awarded.*

REGULATORY ISSUES continued: *RAWD*

Tri-Party Agreement Milestone M-16-26C: *M-16-26C, "Complete Remediation and Backfill of 10 Liquid Waste Sites and Process Effluent Pipelines in the 100-HR-1 Operable Unit" by May 31, 2001, will need to be renegotiated due to additional plumes and unanticipated elevated arsenic levels encountered during confirmation sampling/verification activities. Elevated levels of chromium are also being encountered that are above the remedial action goals.*

Green

Status: *When the impact of the elevated chromium results is evaluated, a Tri-Party Agreement change package will be prepared.*

100 D Area Backfill: *Backfill concurrence for the remaining north segment of the 100-DR north pipeline continues to be delayed pending resolution of a chromium issue. Additional samples have been collected and independently analyzed by three laboratories, with conflicting results. Ecology prefers that another qualified laboratory be utilized for further analysis.*

Green

Status: *Samples were sent to a fourth qualified laboratory for analysis. Based on results, a strategy will be developed to achieve final resolution of this issue.*

EXTERNAL ISSUES (i.e. HAB, Congress, etc.): *RAWD*

None identified at this time.

DOE-RL & HQ ISSUES/REQUESTS (not covered elsewhere): *RAWD*

None identified at this time.

INTEGRATION ACTIVITIES: *RAWD*

Following is a summary of significant integration activities identified during FY00:

ERDF: *In support of Hanford Site partnering, draft waste shipping and receiving plans (WSRPs) were prepared for the two initial waste streams expected from the Spent Nuclear Fuel (SNF) Project's K Basin clean out work. Initial delivery of waste from the SNF began on June 26.*

Green

331A Facility: *The ERDF successfully completed handling its first waste stream from outside the ERC. Transportation and disposal of demolition waste from the 331-A building took place from February 21 to March 6. The demolition contractor, Fluor Federal Services, experienced an equipment-related delay that stretched the completion date out further than originally anticipated. Teaming and coordination between all parties (PNNL, Fluor, D&D and RAWD) was excellent and the job proceeded smoothly. A lessons learned/feedback meeting was held to identify how ERDF processes can be optimized.*

Green

K-Basin Waste: *ERDF personnel in conjunction with members of the Spent Nuclear Fuels Project Team initiated and implemented a successful waste shipment program in support of K-Basin Wastes. Shipments began in June and continue as required.*

Green

Decommissioning Projects (D&D)

SECTION B – RESTORING THE RIVER CORRIDOR

**Financial / Performance Measures data as of month-end September.
All other data as of October 26, 2000 (unless otherwise noted).**

Decommissioning Projects (D&D)

ACCOMPLISHMENTS: *D&D*

FY00 SUMMARY

Following is a summary of significant Decommissioning Project accomplishments achieved during FY00. The FY00 accomplishments are grouped into three categories: momentum, progress, and completion/removal. The Project's top five accomplishments (reactor and 233-S each) are underlined for easy recognition.

Momentum: *(how Hanford cleanup has been "sped up")*

ISS:

Completed demolition of the remaining ancillary structures for both F and DR Reactors, except for the F Reactor fuel storage basin (FSB) and DR Reactor FSB stairwells. Demolition of the F Reactor FSB began on September 25, and demolition of the DR Reactor stairwells began on October 20. F Reactor interim safe storage (ISS) is scheduled for completion in 2002 (one year ahead of schedule). DR Reactor ISS is scheduled for completion in 2001 (four years ahead of schedule).

Completed D and H Reactor presurveys, walkdowns, estimates, and biological cleanup activities, and issued all required D and H Reactors' engineering documents for review prior to initiating ISS demolition activities in FY01 (accelerated from 2004 [D Reactor] and 2006 [H Reactor]).

Green

Progress: *("things" achieved in terms of amounts or percentages)*

ISS:

Completed characterization of the top 5 meters (17 feet) of fill in the F Reactor FSB. Engineering for removal of fill debris in the F Reactor FSB, along with agreements to handle any spent nuclear fuel found in F and H Reactor FSBs, was also completed.

Completed 90% of the safe storage enclosure pourbacks required for the F and DR Reactors.

233-S Plutonium Concentration Facility:

Achieved an average of 250 monthly entries (since February) into 233-S facility with no lost workdays occurring.

Completed loadout hood dismantlement and decontamination activities.

Completed dry cleanup and gross decontamination of the process hood floor. A total of 51 polyjars (0.5 liter in size) containing loose material was collected.

Completed removal and disposal (to ERDF) of 59 meters (193 feet) of exhaust and supply roof duct. A new work approach that allowed removal of larger duct sections improved efficiency and lowered worker safety risks.

ACCOMPLISHMENTS continued: *D&D*

Completed removal of a total of 19 lines from the viewing room south end pipe trench.

Completed removal of all 70 PMMA panels from the process hood.

Completed removal of all piping, valve canisters, conduit, and panels from the instrument loft in the viewing room.

224-B Plutonium Concentration Facility: *(Halted decommissioning activities in May due to higher priority work)*

Submitted the draft engineering evaluation/cost analysis (EE/CA) for regulator review.

Completed initial radiological survey and walkdown of the 224-B offices and storage areas.

Completion/Removal: *("what's done and what's gone")*

ISS:

Completed Project Closeout reports for four facilities including the 108-F Biological Laboratory, 119-DR Exhaust Air Filter Sampling Building, 116-D and 116-DR exhaust stack demolitions. Demolition of these structures was accelerated from outyears and was completed in FY99. Submittal of the closeout reports formally constitutes completion of facility demolition.

Completed F Reactor Hazards Assessment and Characterization Report (satisfying Tri-Party Agreement Target Milestone M-93-08-T01).

B Reactor:

Completed B Reactor Museum Feasibility Assessment (Phase II) Project document (satisfying Tri-Party Agreement Milestone M-93-05). Supplemental cost estimates for hazard mitigation were also completed.

Green

SAFETY/ISMS/CONDUCT OF OPERATIONS: *D&D*

See Executive Summary.

BREAKTHROUGHS/OPPORTUNITIES FOR IMPROVEMENT: *D&D*

Following is a summary of significant breakthroughs identified during FY00:

233-S: *The 233-S Radiological Control group is utilizing a digital camera and photo editing software to place actual photographs of survey locations into Radiological Control Survey Records. This provides the workers with an actual work location picture with radiological survey information annotated on the document. This has given them a better physical understanding of the potential hazards.*

Green

LONG-TERM (6 MONTHS PLUS) IMPORTANT ITEMS: *D&D*

None identified at this time.

MAJOR COMMITMENTS (FISCAL YEAR PLUS 6 MONTHS): *D&D*

- ***DOE Secretarial:***

None identified at this time.

MAJOR COMMITMENTS (FISCAL YEAR PLUS 6 MONTHS) continued: *D&D*

- ***DOE EM Performance Agreement:***

None identified at this time.

- ***TPA Milestones:***

Milestone	Description	Due Date	(F) / (A) Date
***M-93-05**	*Issue B Reactor Phase II Feasibility Study Engineering Design Report for Public Comment*	*6/30/00*	*7/10/00 (A)*

Green

**The B Reactor milestone deliverable was submitted to DOE-RL (PM) on June 27 and delivered to the DOE-RL Office of Regulatory Liaison on June 28 for concurrence and submittal through the remainder of the signature cycle. The document was received by the regulators on July 10, ten days later than the milestone completion date of June 30. An EPA letter received on July 25 documented comments on the content of the document.*

***Status:** RL responded to EPA's comments on August 1. The letter reaffirmed RL's commitment to deliver Draft A Engineering Evaluation/Cost Analysis (EE/CA) to EPA by January 31, 2001. Support will also be provided with the public comment period and through the approval of the Action Memorandum. EPA concurred that all requirements for TPA Milestone M-93-05 and EPA's comments had been addressed. In subsequent meetings with DOE and EPA, it has been agreed to move the Draft A EE/CA deliverable date to April 30, 2001 due to the additional alternatives being considered.*

- ***DNFSB Commitment:***

None identified at this time.

PERFORMANCE OBJECTIVES: *D&D*

Outcome	Performance Indicator	Status
Restore the River Corridor for Multiple Uses	*Reactor ISS and preparation of facilities for decommissioning.*	*Baseline reactor ISS work has been completed per PI requirements.*
Transition Central Plateau to Support Long-Term Waste Management	*233-S Decommissioning*	*All PI work has been completed per PI requirements.*
	224B Decommissioning	*All PI requirements have been completed; balance of performance measure deleted due to suspension of 224B work activities.*

Green

PERFORMANCE MEASURES: *D&D*

	DWP FY00	FY00 Mgmt. Commitments	Current Baseline (Incl. Baseline Changes)	Forecast For FY00	Completed YTD
Facilities	*0*	*0*	*4 [a]*	*4 [a]*	*4 [a]*

Green

[a]116-D, 116-DR, 119-DR, and 108-F.

STRETCH AND SUPERSTRETCH GOALS: *D&D*

FY00 D&D "Superstretch" Goals	Scope Dollars (K)	Approved BCPs (K)	
Continue F Reactor Interim Safe Storage (ISS) (BCP-20151)	*$2,000.0K*	*$1,490.8K*	Green
****Public Access to Hanford Townsite and B Reactor***	*$750.0K*	*$0.0K*	Red*
S/Total D&D Superstretch Goals:	***$2,750.0K***	***$1,490.8K***	

**Status: Requires funding support outside of ER to execute work. Presentation made to Keith Klein on 9/20/00 outlining options and costs for public access via bike path and boat dock.*

PROJECT STATUS (COST/SCHEDULE/MAJOR BASELINE CHANGE): *D&D*

- ***Schedule:***

Decommissioning Projects	BCWS $K	BCWP $K	Variance $K	
ER06 Decontamination & Decommissioning	*17,129*	*15,420*	*-1,709*	Green
Total D&D	***17,129***	***15,420***	***-1,709***	

PBS-ER06 – Decontamination and Decommissioning
Schedule Variance = ***-$1709K; -10.0%*** *[Last Month: -$207K; -1.4%]*

Cause: *Efficiencies allowed F Reactor ISS scope (Superstretch) to be initiated with completion planned for FY01; 233-S decommissioning: disposal of duct delayed pending approval of asbestos abatement plan. Ventilation system modifications are required at the 233-S project.*

Resolution: *Superstretch work will be carried over to FY01 for completion; a baseline change proposal has been submitted to performing ventilation system modifications.*

PROJECT STATUS (COST/SCHEDULE/MAJOR BASELINE CHANGE) continued: *D&D*

- ***Cost:***

Decommissioning Projects	BCWP $K	ACWP $K	Variance $K	
ER06 Decontamination & Decommissioning	*15,420*	*15,376*	*44*	Green
TOTAL D&D	***15,420***	***15,376***	***44***	

PBS-ER06 – Decontamination and Decommissioning

Cost Variance = ***+$44K; +0.3%*** *[Last Month: +$291K; +2.1%]*

Cause: *F and DR ISS sample analysis costs are significantly lower than expected due to utilizing larger data groups (economies of scale).*

Resolution: *Savings were used to perform other remediation work.*

Cause: *233-S – Additional cost to correct airflow and installing electrical upgrades in the viewing room.*

Resolution: *Cost overruns were trended and are reflected in the project EAC.*

REGULATORY ISSUES: *D&D*

A number of significant issues were identified and resolved during FY00. Those remaining at fiscal year end include:

D and H Reactor Impacts of TPA Milestones: *The acceleration of the reactor ISS projects is no longer consistent with the current M-93 milestones, especially the competitive procurement and renegotiating milestone (M-93-12) for DR Reactor.* Green

Status: *Initial discussions with the regulators have begun which should lead to resolution in the near future. This will need to be discussed as part of RL's 100 Area acceleration vision.*

Demolition Equipment: *Demolition equipment (track hoe excavators and shuttle truck) breakdowns continue to cause delays to demolition activities.* Green

Status: *Mechanics continue to repair the equipment as quickly as possible. Impact sheets are being completed to track the delays. Issues/impacts were presented to the Results Management Team (RMT). Based on information provided, the Field Support organization was directed to prepare a procurement plan for purchase of a new excavator. Procurement is evaluating a path forward for purchase of the equipment. $1.2M for purchase of an excavator and shear is included on the FY01 supplemental funding list.*

EXTERNAL ISSUES (i.e. HAB, Congress, etc.): *D&D*

None identified at this time.

DOE-RL & HQ ISSUES/REQUESTS (not covered elsewhere): *D&D*

None identified at this time.

INTEGRATION ACTIVITIES: *D&D*

None identified at this time.

Program Management and Support (PM&S)

SECTION B – RESTORING THE RIVER CORRIDOR

Financial / Performance Measures data as of month-end September.
All other data as of October 26, 2000 (unless otherwise noted).

Program Management & Support (PM&S)

ACCOMPLISHMENTS: *PM&S*

FY00 SUMMARY

Following is a summary of significant Program Management and Support Project accomplishments achieved during FY00. The FY00 accomplishments are grouped into three categories: momentum, progress, and completion/removal. The Project's top five accomplishments are underlined for easy recognition.

Momentum: *(how Hanford cleanup has been "sped up")*

Completed 9 technology deployments (FY00 HQ performance measure identified 4 technology deployments). These deployments were instrumental in providing efficiencies in the efforts of waste site remediation, reactor ISS, and CDI characterization activities.

Progress: *("things" achieved in terms of amounts or percentages)*

Completed and received HQ approval of the FY00 Baseline Update and Reconciliation change proposal. The Integrated Priority List for the FY02 budget submittal was also completed.

Conducted FY01-FY03 DWP management review meetings with ERC, RL, HQ, regulators, and stakeholders to reach agreement on future workscope. The FY01-FY03 DWP was approved on September 26. The 7-volume document establishes the basis for FY01 ER work execution.

Exceeded FY00 Small Business socioeconomic contractual goals. All small, small disadvantaged, and women-owned small business prime contract goals have been met or exceeded for the entire six years of BHI's prime contract. In addition, this past year BHI was recognized as having the best small business statistics in Bechtel Systems and Infrastructure (parent company of BHI).

Completed HQ Integrated Planning, Accountability, and Budget System Part B budget formulation data for FY02.

Completed the 100 Area and the 200 West Area inspections as required by the Hanford Site RCRA permit. No concerns or violations were noted as a result of the inspections. The semi-annual site-wide RCRA inspection of the Columbia River during high water was also conducted with no concerns noted.

Completed 56 environmental compliance assessments/surveillances/audits.

Received results from the FY99 Procurement DOE Complex Balanced Score Card indicating that BHI shared highest score in the DOE complex in four of the eleven tracked categories.

Received recognition from the Secretary of Energy with a Certificate of Appreciation for contributions to DOE's mission to prevent pollution in operations, processes, and programs.

Green

ACCOMPLISHMENTS continued: *PM&S*

Completion/Removal: *("what's done and what's gone")*

Maintained a major sustained effort across all ERC projects and functional departments on implementing, maintaining, and improving our Integrated Environment, Safety, and Health Management System (ISMS). Initial efforts focused on preparing for and supporting DOE verification of our ISMA and addressing opportunities for improvement. The Phase II verification audit, which was conducted by a DOE-led team, was successfully completed and resulted in no major findings.

Completed successful Y2K transition. All aspects of Y2K operations performed exceptionally well through the rollover weekend to ensure operations were ready for the first days of business in 2000.

Accomplished emergency reposting of the 100 B/C controlled area and the 200 Area 216-S ditch within a week of the Hanford Site range fire in June. Over 250 ERC signs were damaged by the fire.

Completed targets for the Waste Minimization performance incentive including redeployment of a concrete crusher to Ohio, recycling absorbents, recycling flat bed trailer and generator, and recycling 100 drum overpacks.

Green

SAFETY/ISMS/CONDUCT OF OPERATIONS: *PM&S*

See Executive Summary.

BREAKTHROUGHS/OPPORTUNITIES FOR IMPROVMENT: *PM&S*

None identified at this time.

LONG-TERM (6 MONTHS PLUS) IMPORTANT ITEMS: *PM&S*

None identified at this time.

MAJOR COMMITMENTS (FISCAL YEAR PLUS 6 MONTHS): *PM&S*

- ***DOE Secretarial:***

None identified at this time.

- ***DOE EM Performance Agreement:***

None identified at this time.

- ***TPA Milestones:***

None identified at this time.

- ***DNFSB Commitment:***

None identified at this time.

PERFORMANCE OBJECTIVES: *PM&S*

None identified at this time.

PERFORMANCE MEASURES: *PM&S*

BHI committed to peform four technology deployments for FY00. A list of planned/committed FY00 technology deployments was transmitted to RL on January 27. Nine technology deployments have been completed through September.

Technology Deployment	PBS	Planned Date	(F) / (A) Date
Small Diameter Geographical Logging System (ROI Funded)	*RL-ER01*	*10/99*	*10/99 (A)*
Liquid-Level Detection Technology (Ultrasonics)	*RL-ER05*	*10/99*	*10/99 (A)*
Remote Concrete Sampling System (Brokk™ with automated concrete coring attachment)	*RL-ER05*	*03/00*	*09/00 (F) [a]*
3-D Visual and Gamma Ray Imaging System	*RL-ER06*	*06/00*	*07/00 (A) [b]*
Liquid-Level Detection Technology (Thermography and/or Ultrasonics)	*RL-ER05*	*09/00*	*[c]*
In Situ Object Characterization Survey (ISOCS) System	*RL-ER06*	*09/00*	*07/00 (A) [d]*
Remote Drain Line Characterization Technology	*RL-ER05*	*[e]*	*08/00 (A)*
Overview Video System (OVS)	*RL-ER05*	*[e]*	*01/00 (A)*
Passive Soil Vapor Extraction (SVE)	*RL-ER08*	*[e]*	*10/99 (A)*
Wireline Cone Penetrometer	*RL-ER01*	*[e]*	*08/00 (A)*

Green

[a] The Brokk™ concrete coring machine successfully obtained a total of eight concrete cores within four process cells in support of the CDI project.
[b] Equipment procurement delay. Not needed at CDI, but is being used by D&D ISS.
[c] Technology not needed.
[d] This deployment was identified as a planned (not committed) deployment for FY00, and is currently being used by D&D ISS. Additional deployments may occur at 233-S and 221-U facilities.
[e] New EM-40 successful technology deployments which were not in the original FY00 deployment plan.

STRETCH AND SUPERSTRETCH GOALS: *PM&S*

None identified at this time.

PROJECT STATUS (COST/SCHEDULE/MAJOR BASELINE CHANGE): *PM&S*

- ***Schedule:***

Program Management & Support	BCWS $K	BCWP $K	Variance $K
ER10 ERC Program Management & Support	*28,522*	*26,775*	*-1,747*
ER10 RL Program Management & Support	*5,835*	*4,553*	*-1,282*
TOTAL PM&S	***34,357***	***31,328***	***-3,029***

Green

PBS-ER10 – Program Management and Support
Schedule Variance = ***-$3029K; -8.8%*** *[Last Month: -$1430K; -5.3%]*

Cause: *ERC performance fee on base and Superstretch work for F Reactor ISS, two remedial action sites, and well decommissioning will be paid upon planned completion in FY01.*

Resolution: *Performance fee will be carried over to FY01 relative to work scheduled.*

Cause: *Late billing on RL site-wide assessments.*

Resolution: *RL is discussing billing/timing with other site contractors/government agencies.*

PROJECT STATUS (COST/SCHEDULE/MAJOR BASELINE CHANGE) continued: *PM&S*

- ***Cost:***

Program Management & Support	BCWP $K	ACWP $K	Variance $K
ER10 ERC Program Management & Support	*26,775*	*26,248*	*527*
ER10 RL Program Management & Support	*4,553*	*4,553*	*0*
TOTAL PM&S	***31,328***	***30,801***	***527***

Green

PBS-ER10 – Program Management and Support
Cost Variance = ***+$527K; +1.7%*** *[Last Month: +$722K; +2.8%]*

Cause: *Fewer special requests and audits have resulted in savings; baseline and strategic planning, staff savings.*

Resolution: *Savings were used to perform other remediation work.*

REGULATORY ISSUES: *PM&S*

None identified at this time.

EXTERNAL ISSUES (i.e. HAB, Congress, etc.): *PM&S*

None identified at this time.

DOE-RL & HQ ISSUES/REQUESTS (not covered elsewhere): *PM&S*

None identified at this time.

INTEGRATION ACTIVITIES: *PM&S*

Following is a summary of significant integration activities identified during FY00:

"Strength through Science" Exhibit: *Bechtel Hanford, Inc. led the effort with assistance from Fluor and PNNL in the preparation, assembling and shipping of posters and handout materials for the DOE-RL Capital Hill exhibit titled "Strength through Science". The exhibit was attended by several Congressmen, Senators and their staff and was judged as one of the best among the DOE Complex.*

Green

Planning & Controls: *Represented ER at the Hanford Site Change Control Performance Improvement Team (PIT) meeting. The February meeting included preparation of material and presentation of several ER BCPs to the PIT members. ERC's process for administering the Stretch and Superstretch performance incentives was also discussed. The PIT consists of RL and Hanford contractor representatives.*

Green

Richland Operations Office

Environmental Restoration

Environmental Management Performance Report

Section C - Central Plateau Information

November 2000

- **Groundwater / Vadose Zone Integration Project**
- **Surveillance / Maintenance & Transition Projects**

Focused on Progress...
Focused on Outcomes!

Department of Energy
Richland Operations Office

Bechtel Hanford, Inc.
Environmental Restoration Contractor

E0008106.1

Groundwater/Vadose Zone Integration Project (GW/VZ)

SECTION C – TRANSITIONING THE CENTRAL PLATEAU

**Financial / Performance Measures data as of month-end September.
All other data as of October 26, 2000 (unless otherwise noted).**

Groundwater/Vadose Zone Integration Project(GW/VZ):

ACCOMPLISHMENTS: *GW/VZ*

FY00 SUMMARY

Following is a summary of significant Groundwater/Vadose Zone Integration Project accomplishments achieved during FY00. The FY00 accomplishments are grouped into three categories: momentum, progress, and completion/removal. The Project's top five accomplishments are underlined for easy recognition.

Momentum: *(how Hanford cleanup has been "sped up")*

Groundwater Management:

Received regulator approval for the ISRM Project ROD Amendment. The ISRM technology involves injecting a chemical (sodium dithionite) into an aquifer to create a chemically-altered treatment zone. Studies completed to date indicate that, when the chromium-contaminated groundwater passes through the permeable chemical zone (barrier), chromium is transformed into a harmless chemical and is immobilized.

Progress: *("things" achieved in terms of amounts or percentages)*

Groundwater/Vadose Zone:

Completed technical and management reviews of the SAC resulting validation of the approach being taken to develop the SAC and in Integration Project Expert Panel support for the SAC activity. The SAC Rev. 0 software development and testing were also completed. The SAC is being designed to provide a cumulative assessment of the impacts and risks associated with Hanford Site contaminants.

Completed field activities at the Vadose Zone Transport Field Study site and commenced data interpretation. The main objectives of this field study are to focus on the underground tank leak issues, improve vadose monitoring capabilities, identify key transport processes, and provide data for model verification.

Issued the S&T Roadmap, Rev. 1 (satisfying a FY00 HQ Management Commitment Milestone). This document links science to address the contaminant concerns relating to Inventory, Vadose Zone, Groundwater, Columbia River, and Risk technical elements.

Developed enhanced conceptual and numerical models of the groundwater/Columbia River interface.

Completed database development to support characterization of systems by defining issues management, and features, events, and processes protocols.

Hosted meetings with the Integration Project Expert Panel and the National Academy of Sciences. Participated in meetings with the Oregon Hanford Waste Board, Oregon Office of Energy, Hanford Advisory Board, public interest groups, and several open Project meetings. Initiated the subpanel review of the Partitioning Interwell Tracer Test.

Green

ACCOMPLISHMENTS continued: *GW/VZ*

Groundwater Management:

Completed FY00 ISRM Project activities including awarding the contract, constructing an evaporation pond, installing 16 wells, and initiating chemical barrier injections and withdrawals in 10 wells (satisfying a FY00 HQ Management Commitment Milestone). The subterranean chemical barrier is 31 meters (100 feet) deep and extends 198 meters (650 feet) between the DR Reactor and the Columbia River. By 2002, the barrier is expected to reach its final length of 702 meters (2,300 feet).

Completed Phase I for the 618-11 Burial Ground elevated tritium investigation. Phase I involved sampling and analysis of 22 wells for tritium and other constituents. Results indicated two areas of high concentrations of helium, which is a natural byproduct of the radioactive decay process of tritium. Phase II of the tritium investigation will include obtaining additional soil gas samples and two groundwater samples. The results of the additional tests will help determine if the helium is coming from a tritium source buried in the waste site or from tritium contamination in the groundwater. The 618-11 Burial Ground is located adjacent to a commercial nuclear reactor complex and is about 6 kilometers (3.5 miles) from the Columbia River.

Completed routine well maintenance and groundwater monitoring activities. At the end of FY00, maintenance had been completed on 179 wells, 27 less than the 206 planned wells (planned carryover).

Operated all five groundwater pump and treat systems above the planned 90% availability during FY00 (97% actual; 90% planned). The pump and treat systems remove contaminants (carbon tetrachloride, strontium, and chromium) from the groundwater and mitigate further migration to the Columbia River. Approximately 1.1 billion liters of groundwater were processed during FY00; over 4.3 billion liters of groundwater have been processed to date.

Green

Completion/Removal: *("what's done and what's gone")*

Groundwater/Vadose Zone:

Completed the Semi-Annual Groundwater/Vadose Zone Report to Congress (satisfying a FY00 HQ Management Commitment Milestone).

Groundwater Management:

Completed installation of a total of 13 Resource Conservation and Recovery Act (RCRA) groundwater wells. The first eight RCRA wells were installed in February which satisfied Tri-Party Agreement Milestone M-24-00K. An additional five RCRA wells were installed through September which satisified Tri-Party Agreement Milestone M-24-46, due December 31, 2000 (15 weeks ahead of schedule). Timely installation of these five wells also supported CH2M HILL Hanford Group (CHG) in meeting one of their FY00 performance incentives.

200 Area Assessments:

Completed FY00 field characterization activities for the 200-CW-1 Gable Mountain/B Pond Cooling Water Operable Unit. This included 12 test pits and one borehole. Significant cost savings resulted from utilizing prior-year lessons learned on this project.

Completed Draft A 200-CW-5 Operable Unit Remedial Investigation/Feasibility Study Work Plan (satisfying Tri-Party Agreement Milestone M-13-22) and Draft A 200-TW-1 and 200-TW-2 Operable Unit RI/FS Work Plan (satisfying Tri-Party Agreement Milestones M-13-23 and M-13-24). A portion of the FY00 savings from other ER work was allocated to allow full scale 200 Area assessment work to commence in FY01.

SAFETY/ISMS/CONDUCT OF OPERATIONS: *GW/VZ*

See Executive Summary.

BREAKTHROUGHS/OPPORTUNITIES FOR IMPROVEMENT: *GW/VZ*

None identified at this time.

LONG-TERM (6 MONTHS PLUS) IMPORTANT ITEMS: *GW/VZ*

Following is a summary of significant long-term important items identified during FY00:

Key ISRM FY 2000 Activities: *Initiated ISRM technology.*

Green

FY 2001 Activities: (Planned Activities)
Activities: Drill and install twenty-four ISRM Barrier Wells. Utilize all wells for ISRM Barrier emplacement.
(Approximately 240 meters of additional ISRM Barrier length to be constructed in FY 2001.)
Drill and install four ISRM compliance wells.

FY 2002 Activities: (Planned Activities)
Activities: Drill and install twenty-four ISRM Barrier Wells. Utilize all remaining wells for ISRM Barrier emplacement.
(Approximately 240 meters of additional ISRM Barrier length to be constructed in FY 2002.)
Demobilize evaporation pond (FY 2002 or FY 2003 Activity).

MAJOR COMMITMENTS (FISCAL YEAR PLUS 6 MONTHS): *GW/VZ*

- ***DOE Secretarial:***

Transmit Update of the Vadose Zone Science and Technology Roadmap (PBS VZ01) due April 30.

Green

Status: *Complete. Draft was transmitted to RL on April 28.*

Install Wells and Initiate Injection of the Barrier for Phase I of the In Situ Reduction Oxidation (REDOX) Groundwater Remediation (PBS ER08) due September 30.

Green

Status: *Complete.*

- *16-well installations were completed on April 24.*
- *The evaporation pond was ready on July 31 for use in managing extraction wastes.*
- *Well injections began on August 1, as scheduled. Ten wells were chemically injected as of the end of September.*
- *Scope for Phase II includes installation of 28 injection wells and 4 compliance monitoring wells.*
- *Well planning activities, including preparation of Description of Work and initiation of site walk downs, are underway.*
- *A chemical injection into one well is scheduled for the end of October.*

Complete the Semi-Annual Groundwater/Vadose Zone Report (December 1999 – March 2000) (PBS VZ01) due May 31.

Green

Status: *Complete. Final document was transmitted to RL on May 31.*

- ***DOE EM Performance Agreement:***

None identified at this time.

MAJOR COMMITMENTS (FISCAL YEAR PLUS 6 MONTHS) continued: *GW/VZ*

- ***TPA Milestones:***

Milestone	Description	Due Date	(F) / (A) Date
M-13-22	*Submit U-Pond/Z-Ditches Cooling Water Group Work Plan*	*12/31/99*	*12/14/99 (A)*
M-24-00K	*Install RCRA Groundwater Monitoring Wells at the Rate of up to 50 in Calendar Year 1999 if Required*	*2/29/00*	*2/17/00 (A)*
M-24-41	*Install Three (3) Additional RCRA Wells for the SST WMA S-SX*	*2/29/00*	*2/17/00 (A)*
M-24-42	*Install One (1) Replacement Well for the 216-S-10 Pond*	*2/29/00*	*2/17/00 (A)*
M-24-43	*Install One (1) Additional RCRA Well for the SST WMA TX-TY*	*2/29/00*	*2/17/00 (A)*
M-24-44	*Install One (1) Replacement Well for the 216-B-3 Pond (This is an extension of a CERCLA vadose borehole.)*	*2/29/00*	*2/17/00 (A)*
M-24-45	*Install Two (2) Additional RCRA Wells for the SST WMA B-BX-BY*	*2/29/00*	*2/17/00 (A)*
M-13-23	*Submit 200-TW-1 Work Plan*	*8/31/00*	*8/14/00 (A)*
M-13-24	*Submit 200-TW-2 Work Plan*	*8/31/00*	*8/14/00 (A)*
M-13-00K	*Submit One (1) 200 NPL RI/FS (RFI/CMS) Work Plan*	*12/31/00*	*12/29/00 (F)*
M-13-25	*Submit Uranium Rich Process Waste Group (200-PW-2) Work Plan*	*12/31/00*	*12/29/00 (F)*
M-24-46	*Install two (2) additional wells at SST WMA S-SX*	*12/31/00*	*9/14/00 (A)*
M-24-47	*Install four (4) additional wells at SST WMA T*	*12/31/00*	*11/28/00 (F)*
M-24-48	*Install four (4) additional wells at SST WMA TX-TY*	*12/31/00*	*12/13/00 (F)*
M-24-00L	*Install RCRA Groundwater Monitoring Wells at the Rate of up to 50 in Calendar Year 2000 if Required*	*12/31/00*	*12/13/00 (F)*
M-16-27A	*Complete 100-HR-3 Phase I, ISRM Barrier Emplacement*	*12/31/00*	*12/22/00 (F)*

Green

- ***DNFSB Commitment:***

None identified at this time.

PERFORMANCE OBJECTIVES: *GW/VZ*

Outcome	Performance Indicator	Status
Restore the River Corridor for Multiple Uses	*Manage groundwater plumes per interim Record of Decisions (RODs).*	*Baseline work has been completed per Performance Incentive (PI) requirements.*
Transition Central Plateau to Support Long-Term Waste Management	*Complete system assessment capability.*	*Baseline work has been completed per PI requirements.*
	Soil sites assessments.	*All PI requirements completed.*
	Manage groundwater plumes per interim RODs.	*Baseline work has been completed per PI requirements.*

Green

PERFORMANCE MEASURES: *GW/VZ*

None planned in FY 2000.

STRETCH AND SUPERSTRETCH GOALS: *GW/VZ*

FY00 GW/VZ "Stretch" Goals	Scope Dollars (K)	Approved BCPs (K)
****Complete Partitioning Interwell Tracer Test (PITT) at 200-ZP-1 and 200-ZP-2***	*$706.0K*	*$414.0K **
S/Total GW – Vadose Zone Stretch Goals:	***$706.0K***	***$0K***

Yellow

**Status: BCP-20246 ($414K) was approved in July to deepen selected 200-PW-1 wells in preparation for the PITT test; work has been initiated with expected completion in FY01. Not identified as Stretch since would not complete in FY00.*

STRETCH AND SUPERSTRETCH GOALS continued: *GW/VZ*

FY00 GW/VZ "Superstretch" Goals	Scope Dollars (K)	Approved BCPs (K)
Provide Permanent Solution for Hanford Groundwater Plumes	*$750.0K*	*$0.0K*
Complete Remediation of 60 Sq. Mi. of Hanford Site:		
(1) *Decommission 4 wells	*$450.0K*	*$104.0K*
(2) *Evaluate 300 wells and decommission up to 90	*$900.0K*	*$1478.0K*
S/Total GW – Vadose Zone Superstretch Goals:	***$2,100.0K***	***$1582.0K***

Red **

Green

**Status: Efficiencies identified. BCPs 20248 and 20185 were endorsed by DOE-RL Assistant Manager for Environmental Restoration & Waste Management (AMEW) on August 10 to administratively verify and decommission wells within the Columbia River Corridor.*

***Efficiencies applied to Superstretch projects in Remedial Action and Decommissioning Projects.*

PROJECT STATUS (COST/SCHEDULE/MAJOR BASELINE CHANGE: *GW/VZ*

- ***Schedule:***

GW/VZ Integration Project	BCWS $K	BCWP $K	Variance $K
ER02 200 Area Remedial Actions	*3,592*	*3,497*	*-95*
ER08 Groundwater Management	*25,770*	*21,335*	*-4,435*
VZ01 Groundwater/Vadose Zone	*11,276*	*10,359*	*-917*
TOTAL Groundwater	***40,638***	***35,191***	***-5,447***

Green

PBS-ER02 – 200 Area Remedial Action (Assessment)
Schedule Variance = ***-$95K; -2.6%*** *[Last Month: -$44K; -1.3%]*

Cause: *Removal of the irrigation system for the Hanford Prototype Barrier was deferred pending an evaluation of excessing-in-place scenario.*

Resolution: *The evaluation is complete. The system will be removed. Workscope will be carried over to FY01.*

PBS-ER08 – Groundwater Management
Schedule Variance = ***-$4435K; -17.2%*** *[Last Month: -$1853K; -8.8%]*

Cause: *Efficiencies allowed well installation and decommissioning superstretch workscope to be initiated in FY00 but major work activities will occur in FY01.*

Resolution: *None required. Well decommissioning is underway. Planned carryover.*

PROJECT STATUS (COST/SCHEDULE/MAJOR BASELINE CHANGE) continued: *GW/VZ*

Cause: *200-ZP-2 PITT well deepening workscope was approved in FY00 with the understanding that most of the work would be completed in FY01.*

Resolution: *None; planned carryover.*

Cause: *Groundwater monitoring activities consisting of sample collection, analysis, interpretation and reporting, and hydrologic assessment are behind schedule due to resource limitations.*

Resolution: *Sampling teams working overtime when possible. Workscope will be carried over into FY01.*

PBS-VZ01 – Groundwater/Vadose Zone
Schedule Variance = ***-$917K; -8.1%*** *[Last Month: -$942K; -9.1%]*

Cause: *Field investigation at representative sites behind schedule due to delayed distribution of samples to the lab and receipt of sample analysis.*

Resolution: *Schedule is not recoverable this fiscal year. RPP Field Investigation Report milestone extended, project in sync with RPP schedule; carryover initiated.*

Cause: *Technical resource availability (formation of the core team) delayed Characterization of Systems initiation.*

Resolution: *Workscope will be carried over to FY01.*

- ***Cost:***

GW/VZ Integration Project	BCWP $K	ACWP $K	Variance $K
ER02 200 Area Remedial Actions	*3,497*	*2,456*	*1,041*
ER08 Groundwater Management	*21,335*	*21,058*	*277*
VZ01 Groundwater/Vadose Zone	*10,359*	*10,179*	*180*
TOTAL Groundwater	***35,191***	***33,693***	***1,498***

Green

PBS-ER02 – 200 Area Remedial Action(Assessment)
Cost Variance = ***+$1041K; +29.8%*** *[Last Month: +$1133K; +32.6%]*

Cause: *Efficiencies learned in prior work were applied to Gable Mountain and B Pond test pit trenching, resulting in savings. Borehole drilling was combined with RCRA drilling resulting in cost savings.*

Resolution: *Savings were used to perform other remediation work.*

PBS-ER08 – Groundwater Management
Cost Variance = ***+$277K; +1.3%*** *[Last Month: +$597K; +3.1%]*

Cause: *Routine well maintenance and sample collection were less than planned due to unresolved waste issues.*

Resolution: *Savings were used to perform other remediation work.*

PROJECT STATUS (COST/SCHEDULE/MAJOR BASELINE CHANGE) continued: *GW/VZ*

PBS-VZ01 – Groundwater/Vadose Zone
Cost Variance = ***+$180K; +1.7%*** *[Last Month: +$484K; +5.1%]*

Cause: *Science & Technology and Characterization of Systems used fewer resources than planned; Expert Panel meeting completed for less than planned.*

Resolution: *Savings were used to perform other remediation work.*

REGULATORY ISSUES: *GW/VZ*

A number of significant issues were identified and resolved during FY00. Those remaining at fiscal year end include:

Monitoring Wells: *Tritium investigation is being conducted near the 618-11 Burial Ground.*

Green

Status: *The results from the 618-11 soil gas investigation have been evaluated, compiled, and mapped. The helium ratios indicate important tritium sources along the eastern half of the northern boundary and the northern third of the eastern boundary. The ratios do not indicate important tritium sources along the western or southern boundaries of the burial ground.*

Based on the soil gas helium ratios, additional sampling and analyses tasks have been initiated to further define the nature and extent of the tritium contamination near the 618-11 burial ground. These tasks include:

- *Groundwater grabs from boreholes C-32-64 and C-32-65 to assess tritium levels in the groundwater and verify the correlation between groundwater concentrations and the helium ratios measured*
- *Additional soil gas sampling (helium analysis) along the northern boundary to assess the potential extent of contamination based on helium ratio results*
- *soil moisture sampling (tritium analysis) along the eastern and northern boundaries to assess the extent of contamination in the vadose zone*
- *variable depth soil gas sampling (helium analysis) at the northern boundary peak helium ratio locations to establish the tritium source (i.e., groundwater or vadose)*

Borehole C-32-6 (about midway along the northern boundary of the 618-11 Burial Ground) was completed to groundwater and a groundwater grab sample was collected on October 9. The initial results from the C-32-64 groundwater grab indicated tritium levels less than 30,000 pCi/liter. The final results for this borehole are expected by November 1.

Borehole C-32-65 (in the Energy Northwest parking lot, east of the 618-11 Burial Ground) was completed to groundwater and a groundwater grab sample was collected on October 13. The groundwater sample has been submitted for laboratory analysis and the initial results are expected in early November.

The placement of additional soil gas sampling ports, soil gas sampling, and soil moisture sampling are scheduled.

REGULATORY ISSUES continued: *GW/VZ*

200-ZP-1/200-ZP-2: *Need for enhanced characterization, enhance removal efficiency, and Dense Non-Aqueous Phase Liquid (DNAPL) investigation.*

Green

> ***Status:*** *Project personnel met with EPA (Doug Sherwood), to discuss the need to restart ZP-2 pending completion of the cost estimate to perform the Partitioning Interwell Tracer Test (PITT) for DNAPL investigation. Decision was made to proceed with the PITT test in lieu of restarting ZP-2 this fiscal year. Drilling will proceed to deepen three wells in support of the PITT and to enhance the current vapor extraction system. A preliminary cost estimate and proposal submitted by a potential contractor is currently being reviewed by a subpanel of the GW/VZ Integration Project's Expert Panel. Evaluation is to be completed by the end of October. A preliminary cost estimate was prepared by BHI for the cost to provide support to the potential contractor.*

200 Area Remedial Investigation/Feasibility Study: *Approximately 800 contaminated soil sites in the 200 Area, which have been grouped into 23 process-based operable units, are to be characterized by 2008 and remediated by 2018. $5M to $6M per year are required to meet Tri-Party Agreement milestones. A budgetary position toward assessment and cleanup of the 200 Area liquid waste sites is needed for the long term. The regulator position is to submit Tri-Party Agreement change packages for each operable unit work plan, to support enforceability in completing remedial investigations through the ROD, based on existing Tri-Party Agreement milestones.*

Yellow

> ***Status:*** *Tri-Party Agreement change packages for the 200-CW-1, 200-CW-5, and 200-CS-1 Operable Units containing RI/FS interim milestones were approved on August 23. In addition, RL is currently working on ways to revise the existing long-term strategy for prioritizing the 200 Area assessment and remediation activities in conjunction with other site cleanup decisions. RL is also seeking to justify and identify additional funds for characterization. RL is pursuing $2.5M additional authorization from other RL funding sources, and the ERC has identified $2.0M (from FY00 efficiencies) for FY01 workscope. The ERC team, in conjunction with RL management, will meet with the regulators to discuss a proposed strategy for initiation of this work.*

WASTE MANAGEMENT ISSUES:

BioSite Notice of Correction: *On May 31, a Notice of Correction (NOC) letter was received by RL from Ecology. This NOC detailed the violations and corrections regarding the shipments of mixed solid wastes that contacted groundwater that contains listed waste (FY01 and FY03), and the drums of M-24 drilling waste at the BioSite.*

Green

> ***Status:*** *RL/BHI response was issued on June 26. Requirements include (1) Issue formal notification to Rabanco and City of Richland Landfills (completed), and (2) Designation and shipment of BioSite Waste (135 drums) was completed in September.*

200-CW-1 IDW Waste Disposal at ERDF: *A request for a contained-in determination was approved for the 200-CW-1 investigation derived waste (IDW) by Ecology. Waste had to be removed from the site by July 14, as per Ecology's approved extension. Waste was shipped to ERDF, with approval from EPA. Disposal into ERDF was delayed pending either approval of the 200-CW-1 work plan by Ecology or signature of the change package.*

Green

> ***Status:*** *A TPA change package was signed on August 23. There were 46 drums on a truck at ERDF. Approval was received from both regulatory agencies to dispose of 38 drums with a contained-in determination. Ecology has approved the remaining 8 drums for disposal in October.*

REGULATORY ISSUES continued: *GW/VZ*

- ***Purgewater Secondary Waste Management:*** *There is a discrepancy in the interpretation of the Purgewater Strategy applicability. Direction was given by RL to become compliant with all land disposal restriction (LDR) requirements.*

  Green

  Status: *An interim phase was initiated, and a screening was completed for the potential listed waste codes to be applied. Activities on Site will be conducted as planned, with a conservative application of the listed waste codes to the secondary wastes. A long-term resolution has also been accepted by RL, to conduct a Listed Waste Applicability Assessment to minimize the listed waste codes to be applied on this waste stream. Meetings with the regulators to resolve pending issues are being planned to take place by mid-November 2000.*

EXTERNAL ISSUES (i.e. HAB, Congress, etc.): *GW/VZ*

None identified at this time.

DOE-RL & HQ ISSUES/REQUESTS (not covered elsewhere): *GW/VZ*

None identified at this time.

INTEGRATION ACTIVITIES: *GW/VZ*

Following is a summary of significant integration activities identified during FY00:

Green

CHG: *Five RCRA well installations were completed prior to September 30 in support of TPA Milestone M-24-00L (due December 31, 2000). This effort supported CHG in meeting one of their FY00 performance incentives.*

Surveillance / Maintenance and Transition Project (SM&T)

SECTION C – TRANSITIONING THE CENTRAL PLATEAU

Financial / Performance Measures data as of month-end September.
All other data as of October 26, 2000 (unless otherwise noted).

Surveillance/Maintenance & Transition Project (SM&T):

ACCOMPLISHMENTS: *SM&T*

FY00 SUMMARY

Following is a summary of significant Surveillance/Maintenance and Transition Project accomplishments achieved during FY00. The FY00 accomplishments are grouped into three categories: momentum, progress, and completion/removal. The Project's top five accomplishments are underlined for easy recognition.

Momentum: *(how Hanford cleanup has been "sped up")*

Completed the CDI drain header characterization in U Plant (221-U Building) utilizing a robotic crawler in August. The robot traveled the equivalent of nearly three football fields to visually inspect the 24-inch diameter drain line for structural integrity, to obtain radiation readings, and to collect samples of contaminated materials within the line.

Completed accessing 38 process cells in U Plant in support of CDI in August. Data gathered from these cells will be used to determine the final disposition of the five defunct chemical processing facilities (canyons) on the Hanford Site.

Completed successful concrete core sampling in four process cells in U Plant in September to determine chemical, radiological, and physical characterization (depth of liquid penetration) conditions of the concrete floors.

Progress: *("things" achieved in terms of amounts or percentages)*

Completed plutonium loadout hood stabilization activities in the REDOX facility.

Initiated S&M activities in the B Plant interior after FH completed required corrective actions to the building ventilation system. There was no evidence of any degradation due to the ventilation system being inoperable for more than ten months. No entry was allowed into the facility while the ventilation system was being repaired.

Completed sample collection and stabilization of the KE/KW acid tanks, and issued final report.

Completed annual surveillance and housekeeping activities at D, H, KE, and KW Reactors.

Completed the REDOX railroad cut interim stabilization.

Completed backfill/downpost of all the outdoor contamination areas around REDOX.

Completed the RARA Annual Report, spring revegetation activities, and fall herbicide spraying.

Completed bare ground herbicide applications.

Completion/Removal: *("what's done and what's gone")*

Completed deactivation of the old 100 N Area water plant, and completed construction and startup of the new replacement water plant.

Green

ACCOMPLISHMENTS continued: *SM&T*

Completed legacy waste removal at KE, KW, and H Reactors.

Completed the Waste Management Plan for legacy waste removal from the KE and KW Reactors. Also completed the 100 D and 100 H Reactors' Waste Management Plans.

Completed sealing all planned 84 passive vents at RARA sites, three weeks ahead of schedule.

Green

SAFETY/ISMS/CONDUCT OF OPERATIONS: *SM&T*

See Executive Summary.

BREAKTHROUGHS/OPPORTUNITIES FOR IMPROVEMENT: *SM&T*

None identified at this time.

LONG-TERM (6 MONTHS PLUS) IMPORTANT ITEMS: *SM&T*

None identified at this time.

MAJOR COMMITMENTS (FISCAL YEAR PLUS 6 MONTHS): *SM&T*

- ***DOE Secretarial:***

None identified at this time.

- ***DOE EM Performance Agreement:***

None identified at this time.

- ***TPA Milestones:***

None identified at this time.

- ***DNFSB Commitment:***

None identified at this time.

PERFORMANCE OBJECTIVES: *SM&T*

Outcome	Performance Indicator	Status
Restore the River Corridor for Multiple Uses	*Deactivation and preparation for decommission of facilities in 100/200 Areas.*	*Baseline work has been completed per PI requirements.*
Transition Central Plateau to Support Long-Term Waste Management	*Perform S&M/risk reduction on inactive facilities to eliminate/stabilize environmental, human health hazards until D&D; Perform CDI activities.*	*CDI baseline work has been completed per PI requirements.*

Green

PERFORMANCE MEASURES: *SM&T*

None planned in FY 2000.

STRETCH AND SUPERSTRETCH GOALS: *SM&T*

FY00 SM&T "Stretch" Goals	Scope Dollars (K)	Approved BCPs (K)	
Deactivate 183-N Water Treatment Plant (Phase I) (BCP-20111)	*$131.0K*	*$131.0K*	Green
Deactivate 183-N Water Treatment Plant (Phase II) (BCP-20175)	*$159.0K*	*$159.0K*	
Asbestos Abatement & Repairs (100, 200, & 300 Areas)	*$470.0K*	*$64.2K*	Red *
Complete the CDI Technical Work to Support the Phase III Feasibility Study	*$490.0K*	*$0.0K*	Red **
S/Total SM&T -Facility Transition Stretch Goals:	***$1,250.0K***	***$354.2K***	

**Workscope initiated; completion impacted by delay in sampling analysis.*

***Efficiencies not identified until late in the fiscal year to support initiation and completion of work in FY00. Efficiencies applied to higher priority and emerging workscope.*

PROJECT STATUS (COST/SCHEDULE/MAJOR BASELINE CHANGE): *SM&T*

- ***Schedule:***

Surveillance/Maintenance & Transition Project	BCWS $K	BCWP $K	Variance $K	
ER05 Surveillance & Maintenance	*14,530*	*13,338*	*-1,192*	Green
ER07 Long-Term Surveillance & Maintenance	*46*	*46*	*0*	
TOTAL SM&T	***14,576***	***13,384***	***-1,192***	

PBS-ER05 – Surveillance and Maintenance
Schedule Variance = ***-$1192K; -8.2%*** *[Last Month: -$793K; -6.1%]*

Cause: *Completion of the B Reactor hazards mitigation (including roof repair) was approved in FY00 with work planned for FY01.*

Resolution: *None; planned carryover.*

Cause: *Major repairs on REDOX compressor and exhaust fan delayed pending evaluation of work priorities.*

Resolution: *The immediate need for repairs/maintenance is being assessed.*

PROJECT STATUS (COST/SCHEDULE/MAJOR BASELINE CHANGE) continued: *SM&T*

Cause: *200 Area surveillance and maintenance activities for REDOX repairs and U-Plant roof repair were initiated in FY00 with most of the work planned for FY01.*

Resolution: *None; planned carryover.*

PBS-ER07 – Long-Term Surveillance and Maintenance (BCWS $46K for FY00)
Schedule Variance = N/A

- ***Cost:***

Surveillance/Maintenance & Transition Project	BCWP $K	ACWP $K	Variance $K
ER05 Surveillance & Maintenance	*13,338*	*13,093*	*245*
ER07 Long-Term Surveillance & Maintenance	*46*	*39*	*7*
TOTAL SM&T	***13,384***	***13,132***	***252***

Green

PBS-ER05 – Surveillance and Maintenance
*Cost Variance = +**$245K; +1.8%** [Last Month: +$374K; +3.1%]*

Cause: *Herbicide application and KE/KW acid tank stabilization less than planned.*

Resolution: *Underrun was utilized for other ER work.*

Cause: *Underruns on B Plant S&M due to delays in completing the filter changeout and duct work repair on stack.*

Resolution: *Costs will be increasing as B Plant stack was turned over to ERC in August.*

Cause: *KE/KW legacy waste removal cost overrun; estimate did not account for difficulties encountered.*

Resolution: *Overrun reflected in estimate at completion (EAC).*

PBS-ER07 – Long-Term Surveillance and Maintenance (BCWS $46K for FY00)
Cost Variance = N/A

REGULATORY ISSUES: *SM&T*

A number of significant issues were identified and resolved during FY00. Those remaining at fiscal year end include:

PUREX and B Plant Canyon Roof Repairs: *Funding for PUREX and B Plant canyon roof repairs has not been identified for FY01.*

Yellow

Status: *The source and timing of the funding has not been resolved. On July 6, BHI transmitted a letter to RL recommending PUREX canyon roof repair funding be provided no later than the beginning of FY01 per the Memorandum of Agreement.*

EXTERNAL ISSUES (i.e. HAB, Congress, etc.): *SM&T*

None identified at this time.

DOE-RL & HQ ISSUES/REQUESTS (not covered elsewhere): *SM&T*

None identified at this time.

INTEGRATION ACTIVITIES: *SM&T*

None identified at this time.